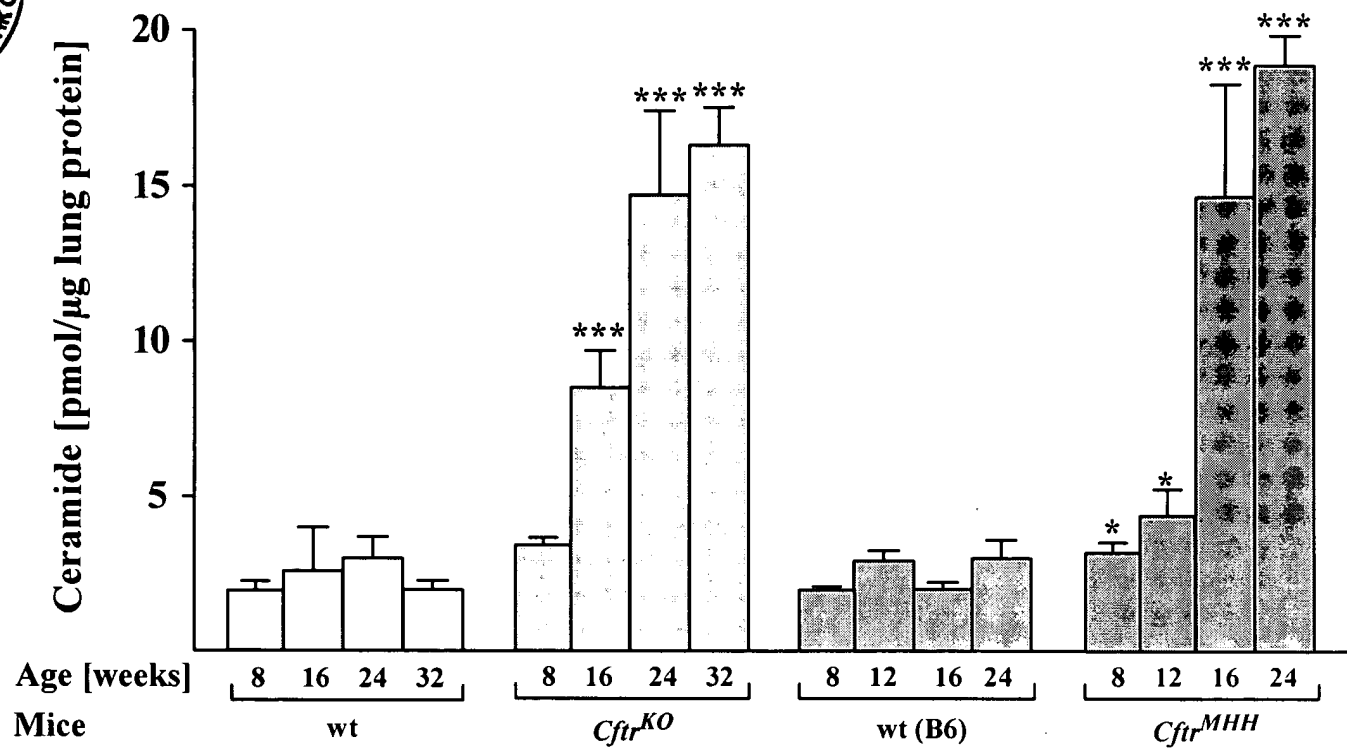
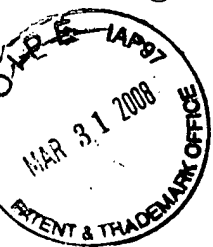


Fig. 1a



ig. 1b

**wt**

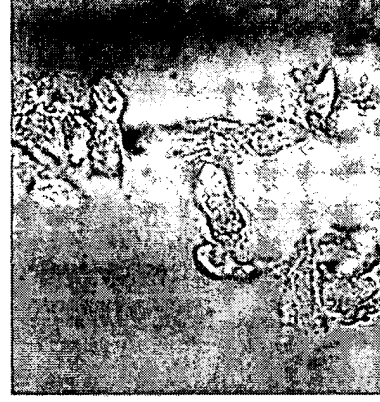
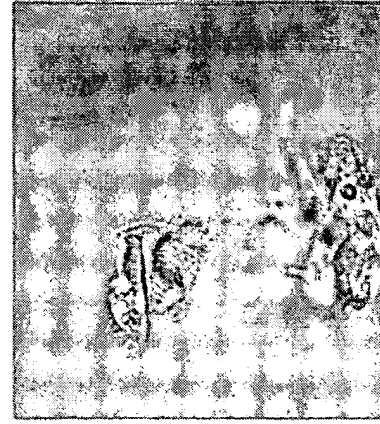
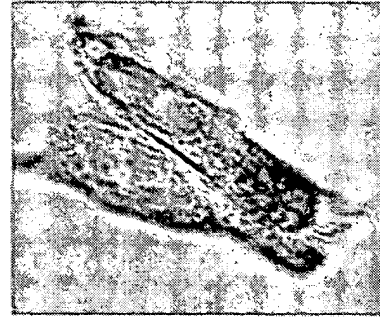
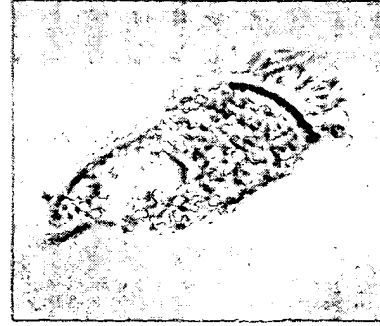
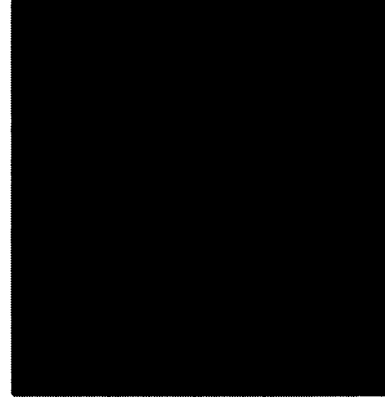
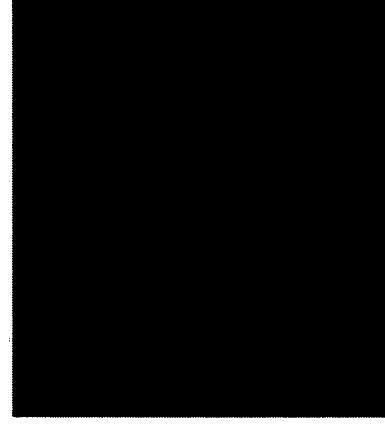
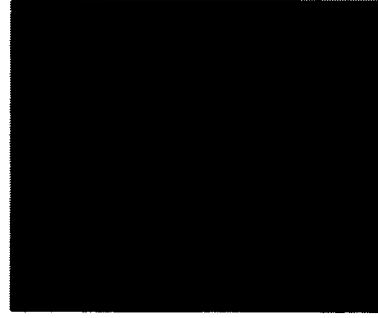
***Cfr KO***

**wt (B6)**

*Cfr. MHH*

# y3-anti- aramide

# ans- ission

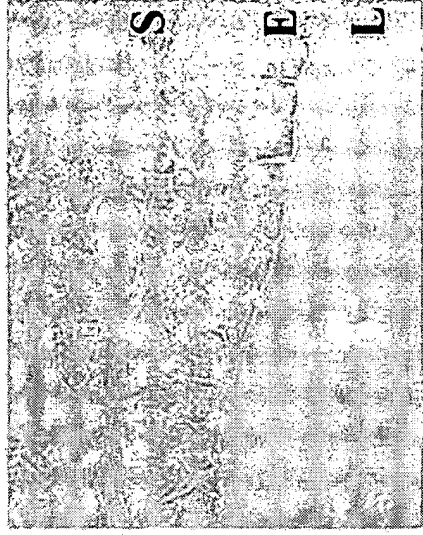
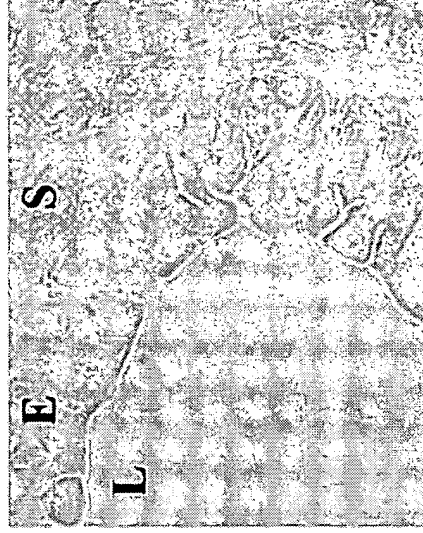
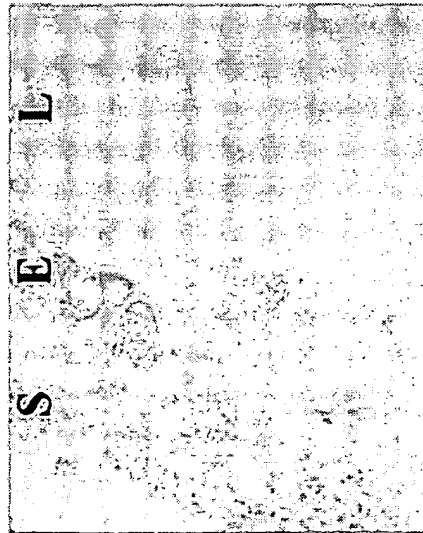
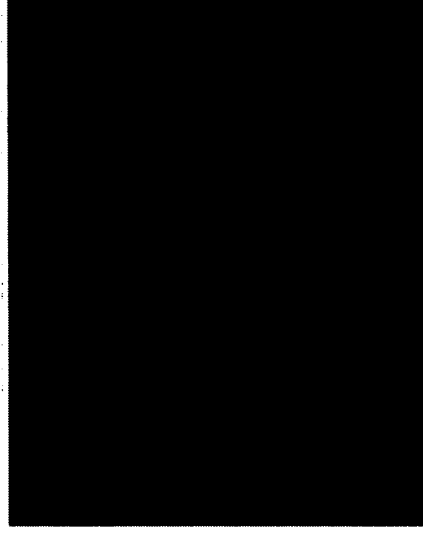
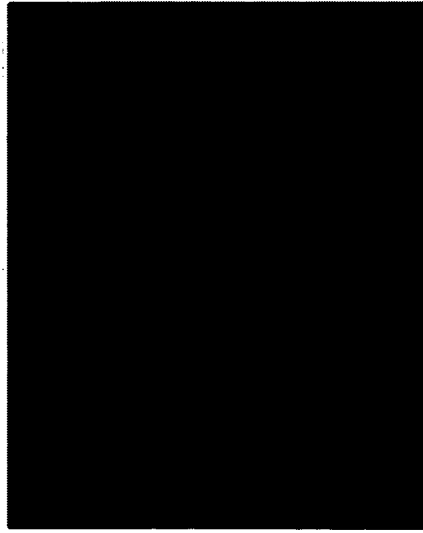


g. 1c

wt

*Cftr<sup>KO</sup>*

*Cftr<sup>MHH</sup>*



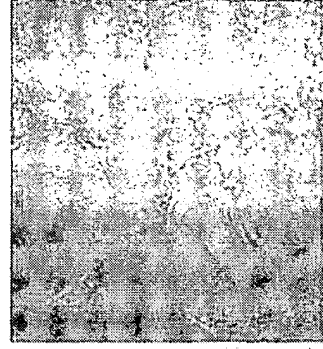
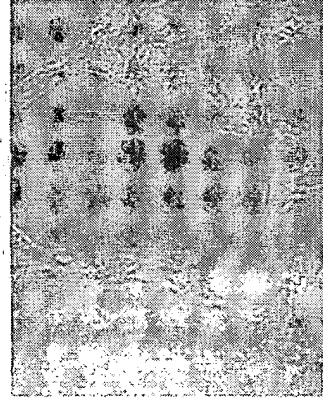
trans-  
mission

veoli

wt

*Cftr<sup>KO</sup>*

*Cftr<sup>KO</sup>*



3-anti-  
ramide

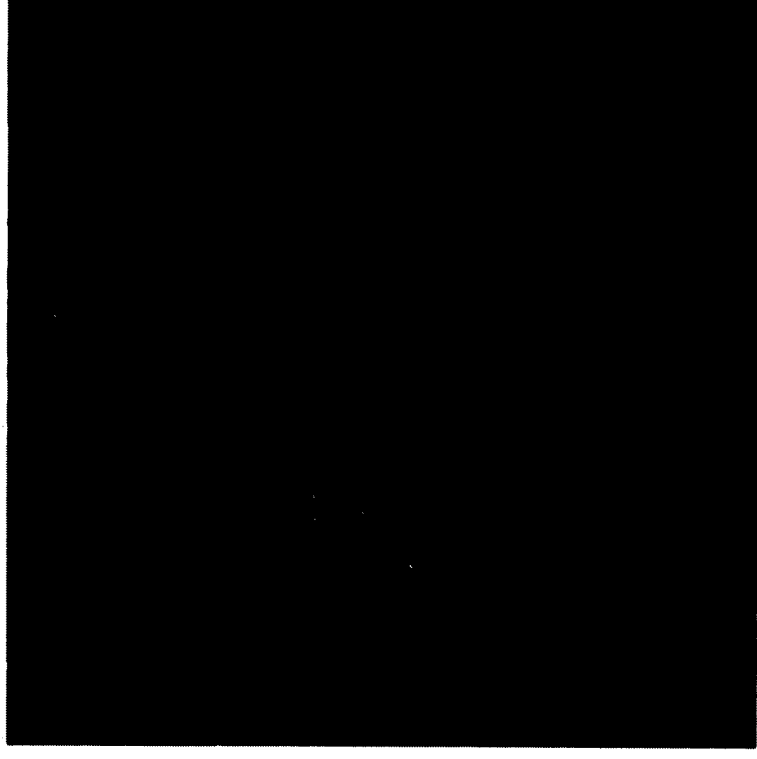
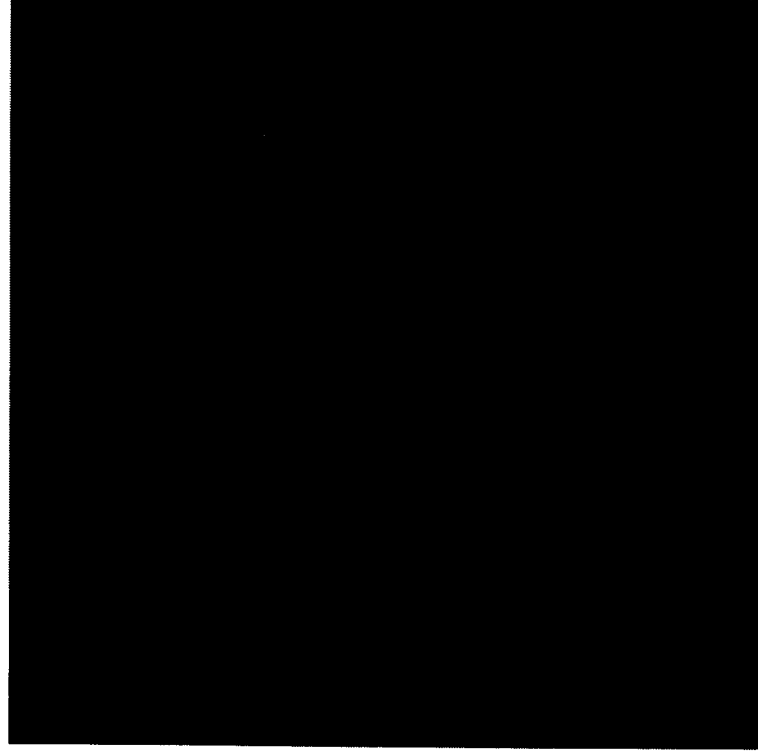
trans-  
mission

wt

**Fig. 1d**

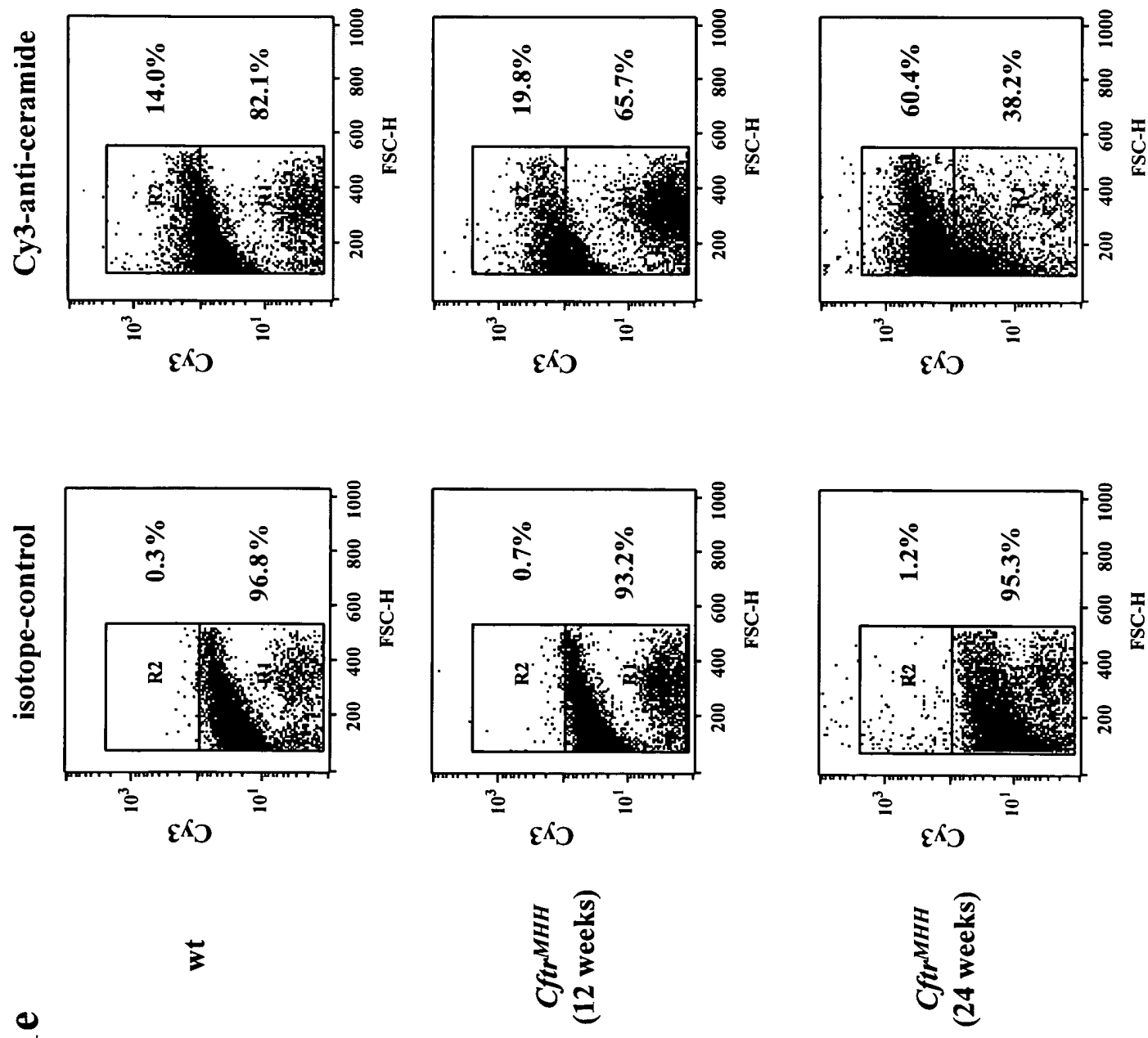
**wt**

***Cfr<sup>MHH</sup>***



**Cy3-anti-  
ceramide  
(confocal)**

**Fig. 1e**



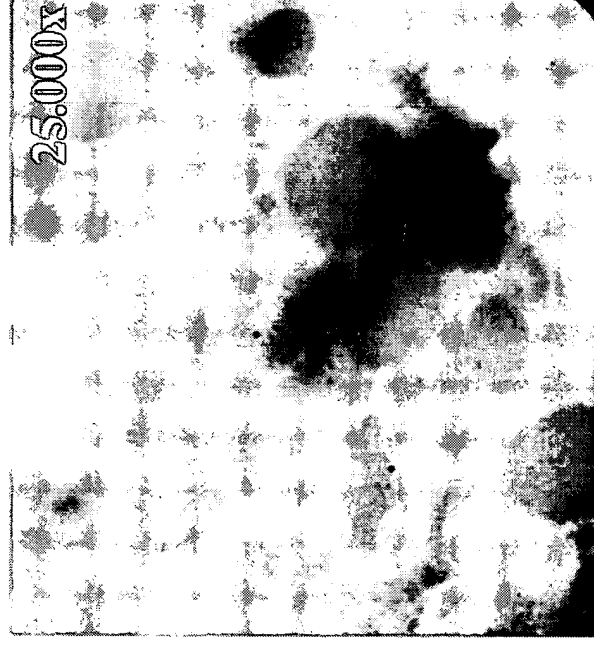
**g. 1f**

**wt**



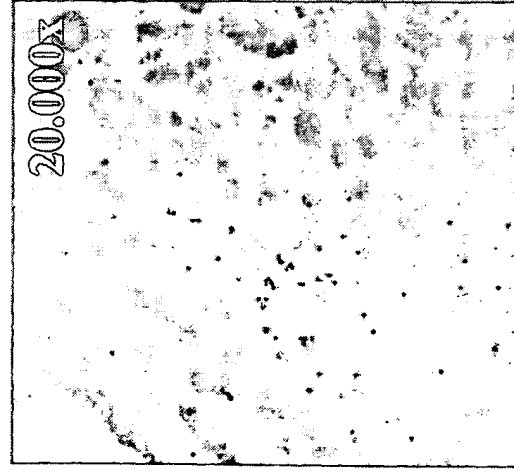
**25 nm anti-  
ceramide**

**wt**



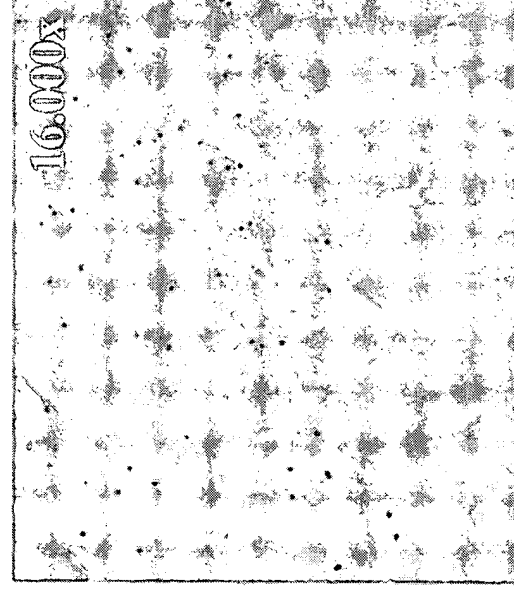
**10 nm anti-  
cathepsin D**

***Cfir<sup>MHH</sup>***



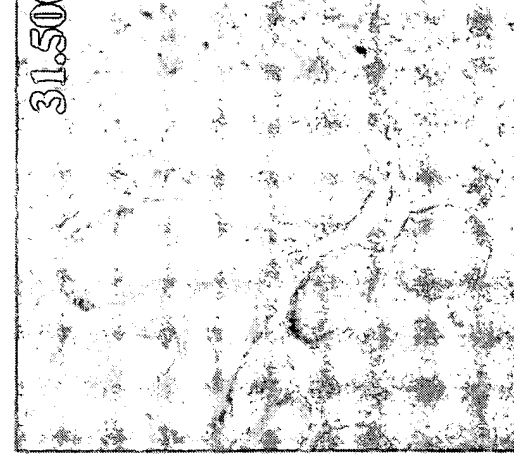
**5 nm anti-  
ceramide**

***Cfir<sup>MHH</sup>***



**16 nm anti-  
cathepsin D**

***Cfir<sup>MHH</sup>***



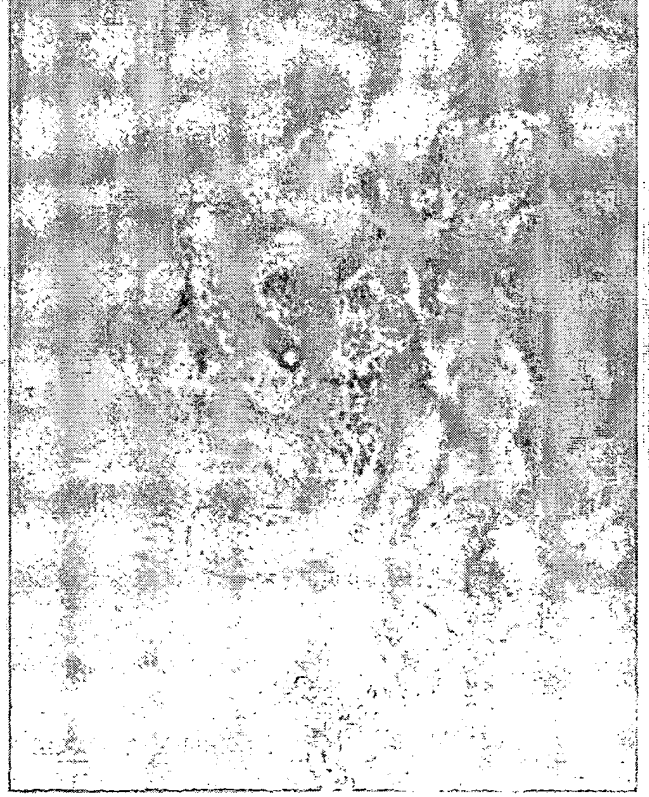
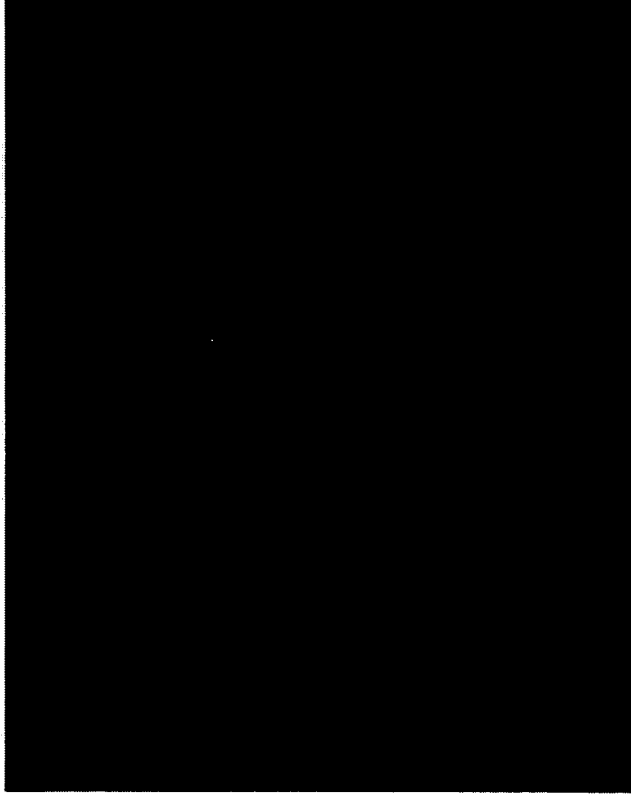
**control**

Fig. 1g

Cy3-anti-  
ceramide

Control

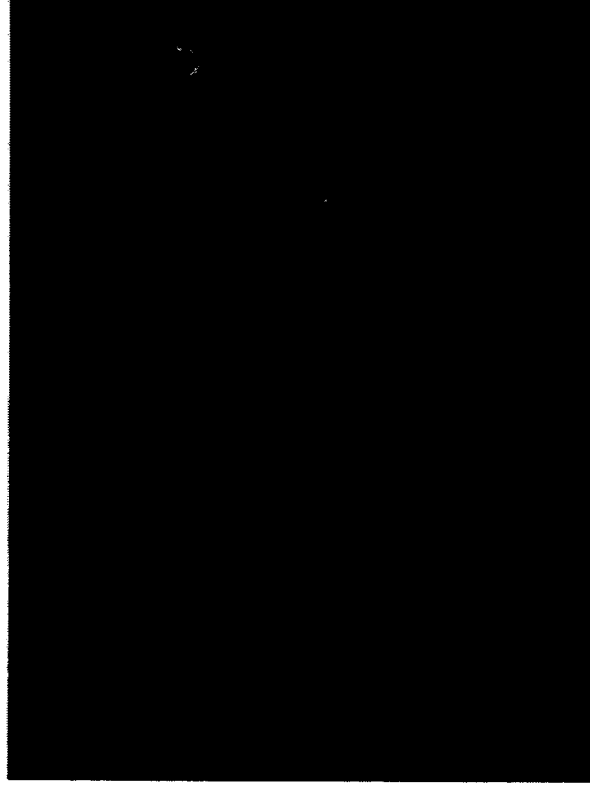
CF-patient



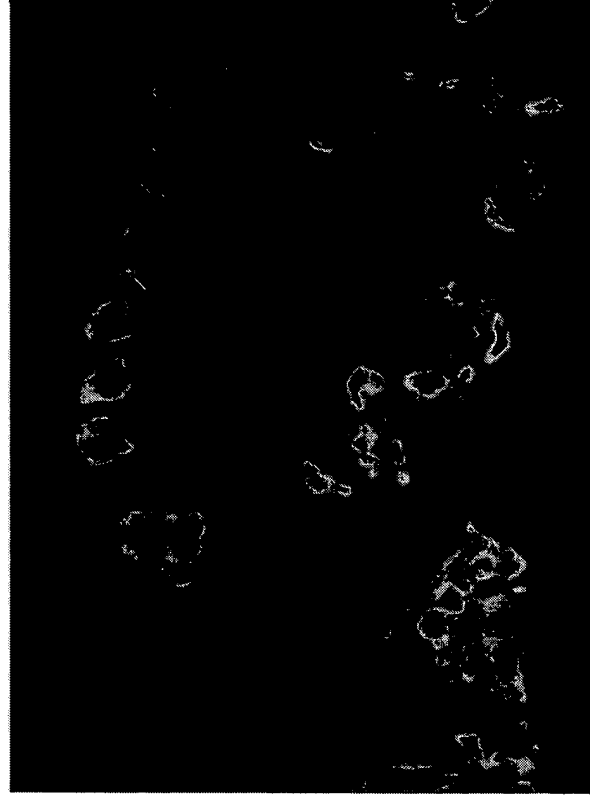
trans-  
mission

**Fig. 1h**

**Control**

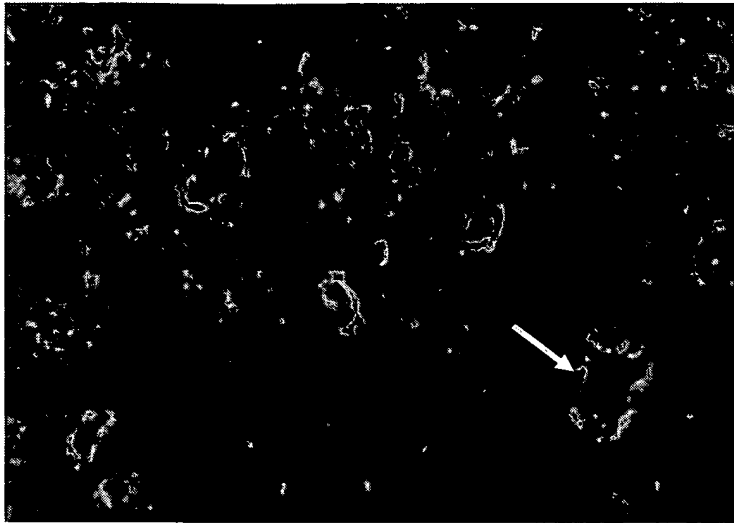


**CF-patient**

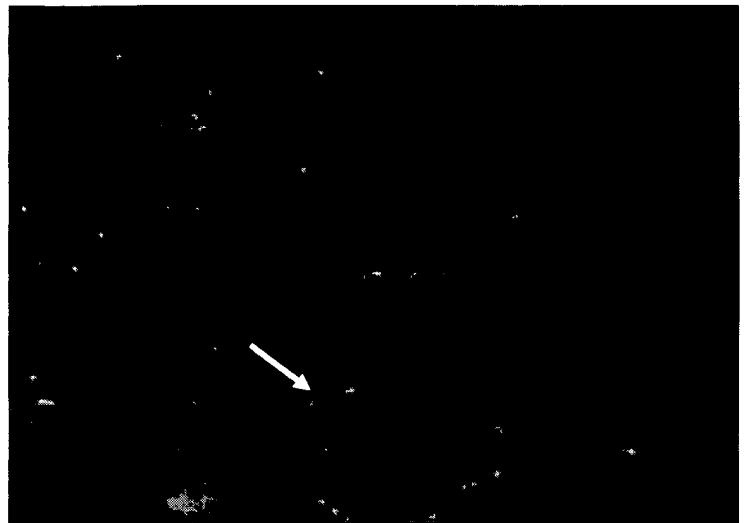




**CF-patient**

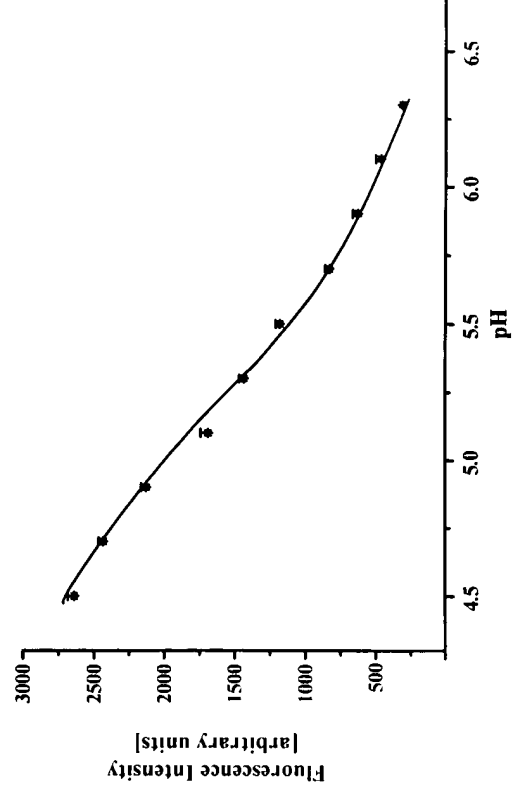
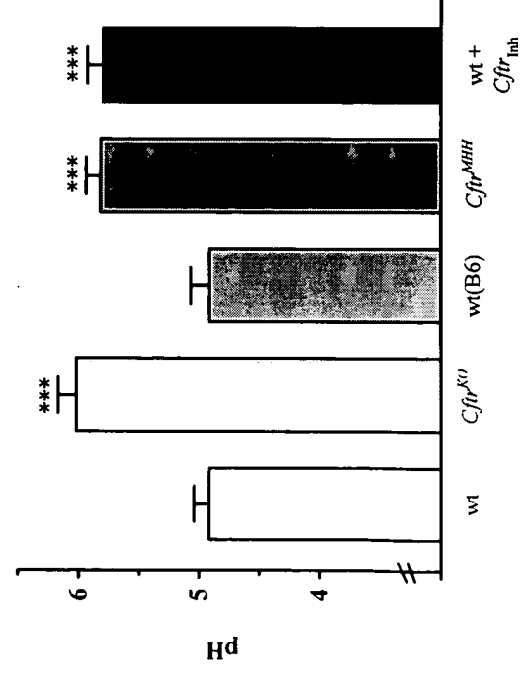
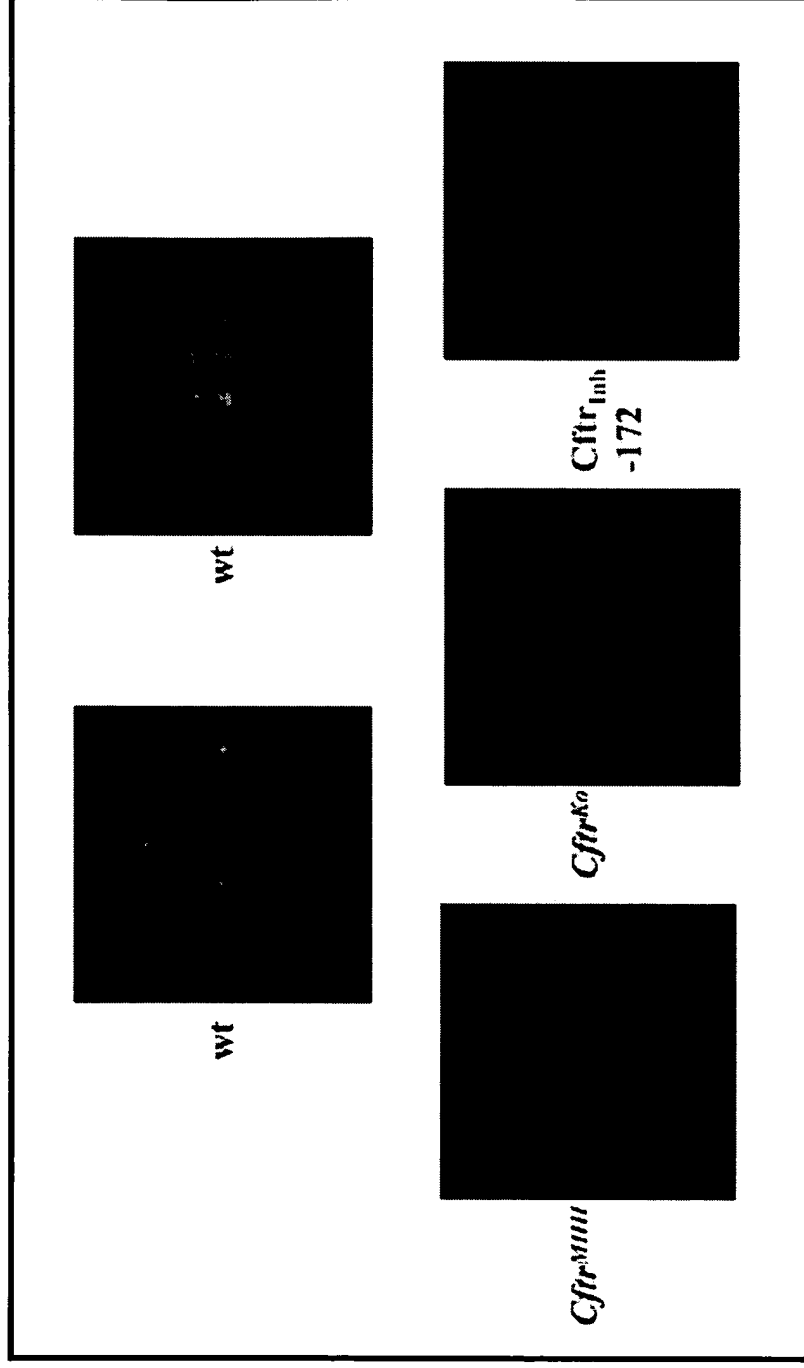


**control**

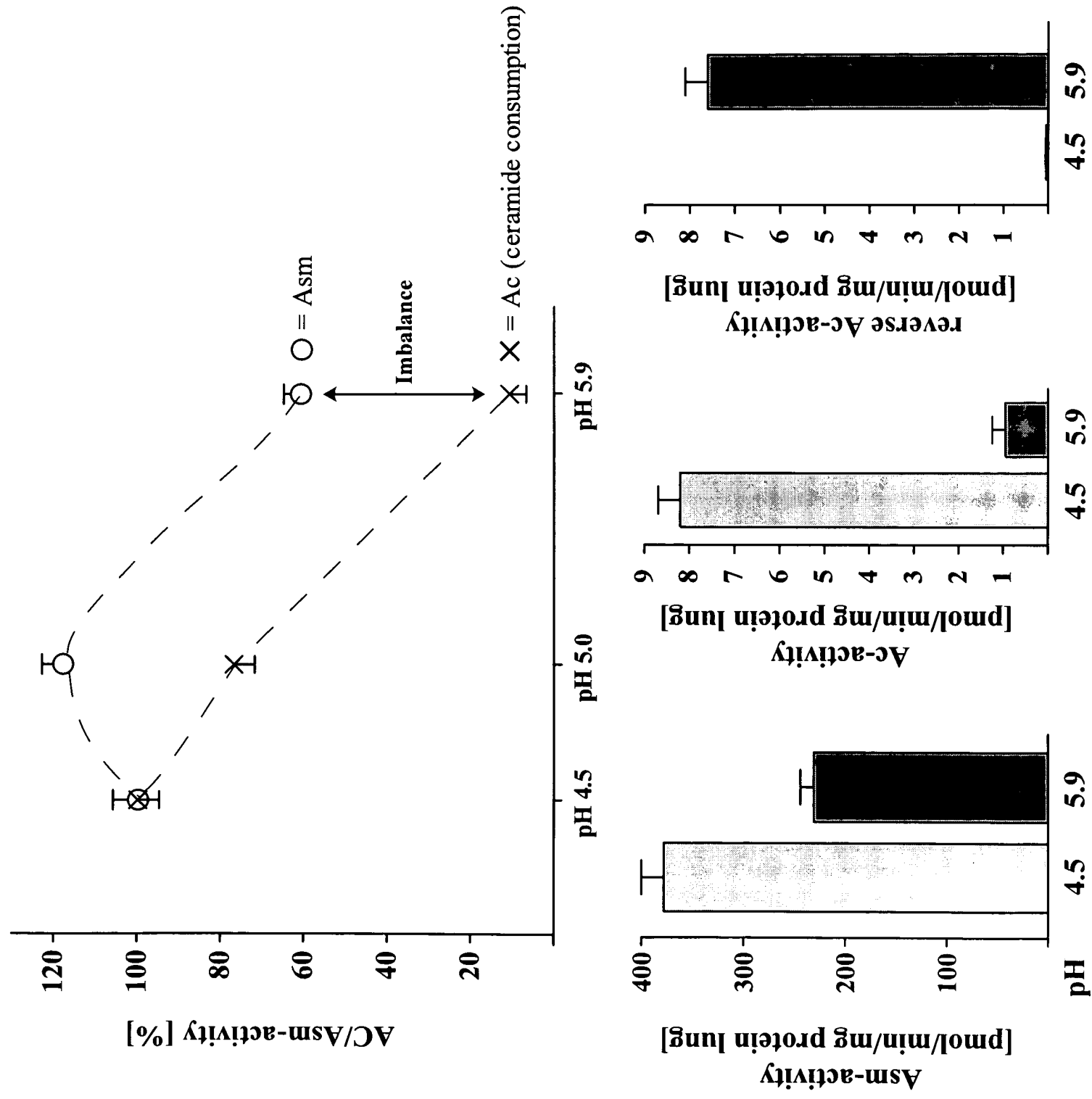


**Staining: FITC-anti ceramide**

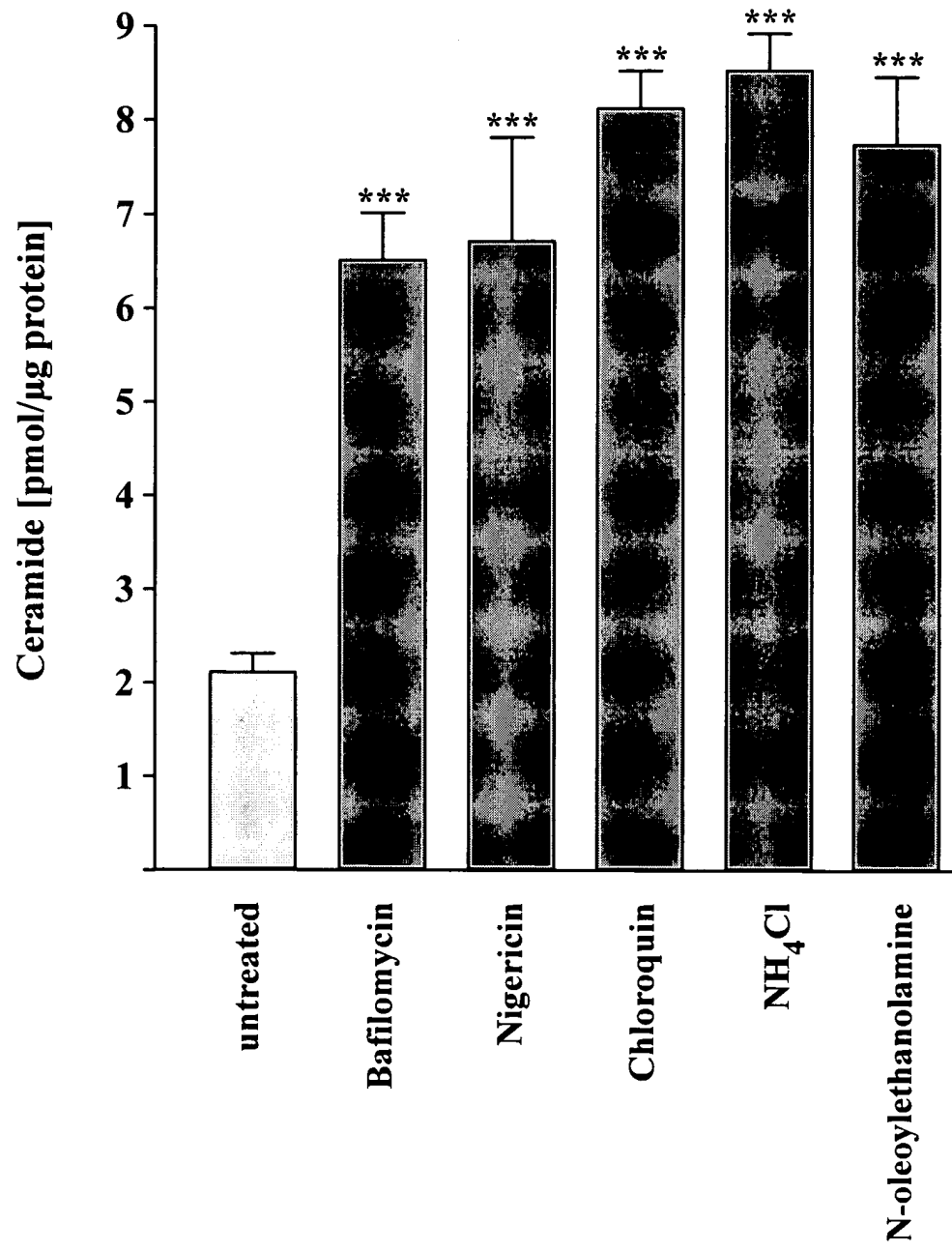
Fig. 2a



ig. 2b



**Fig. 2c**



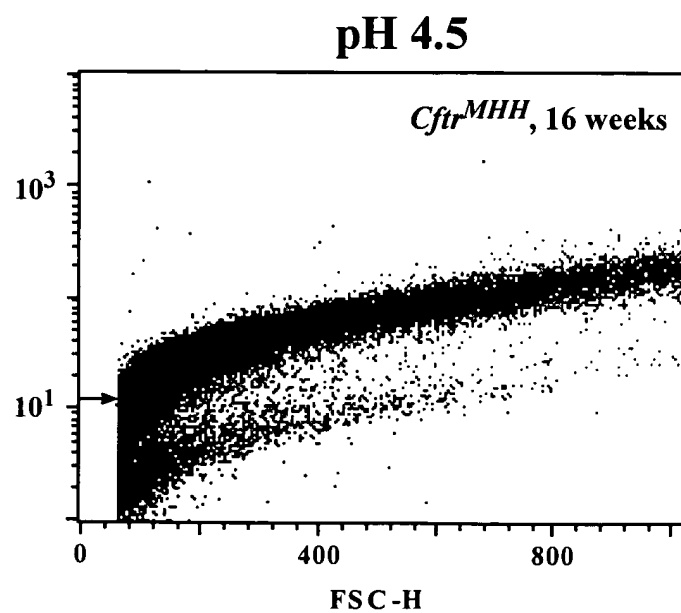
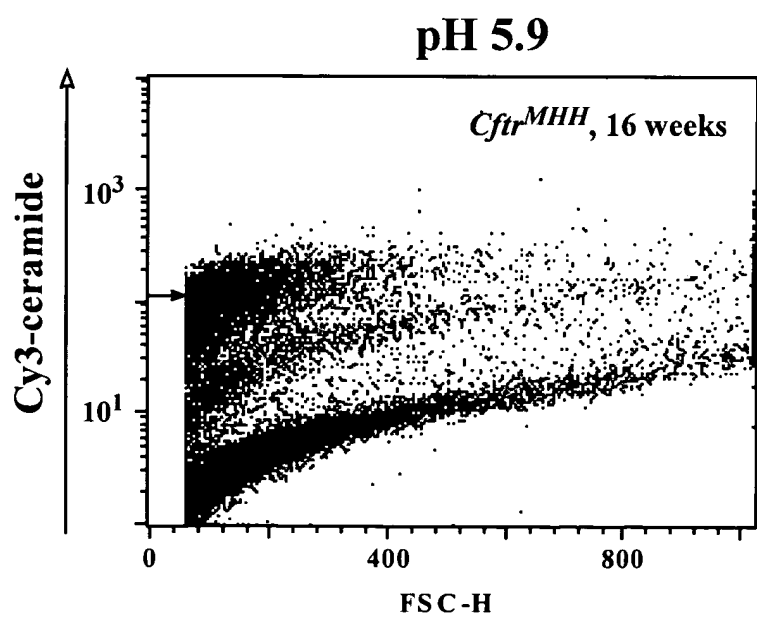
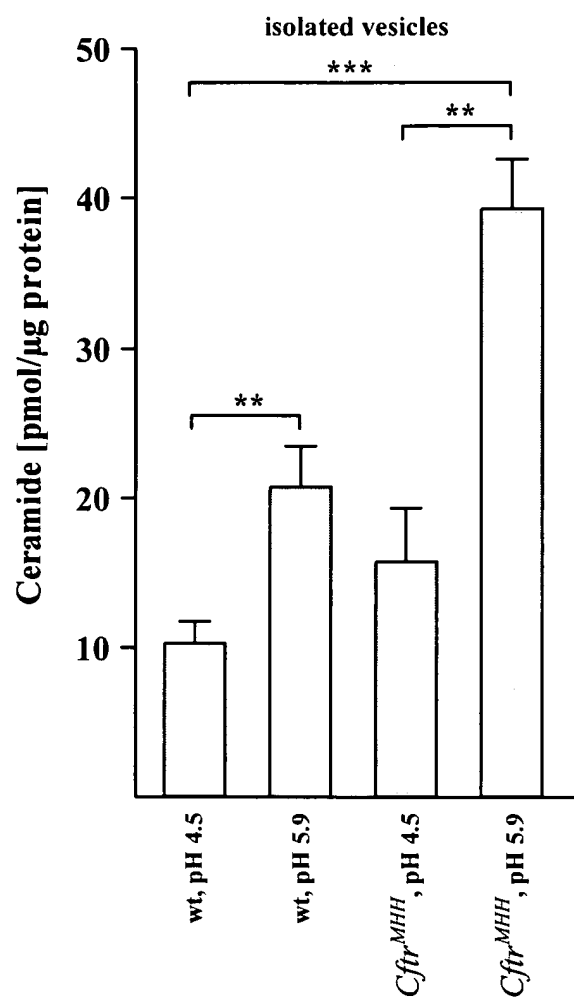


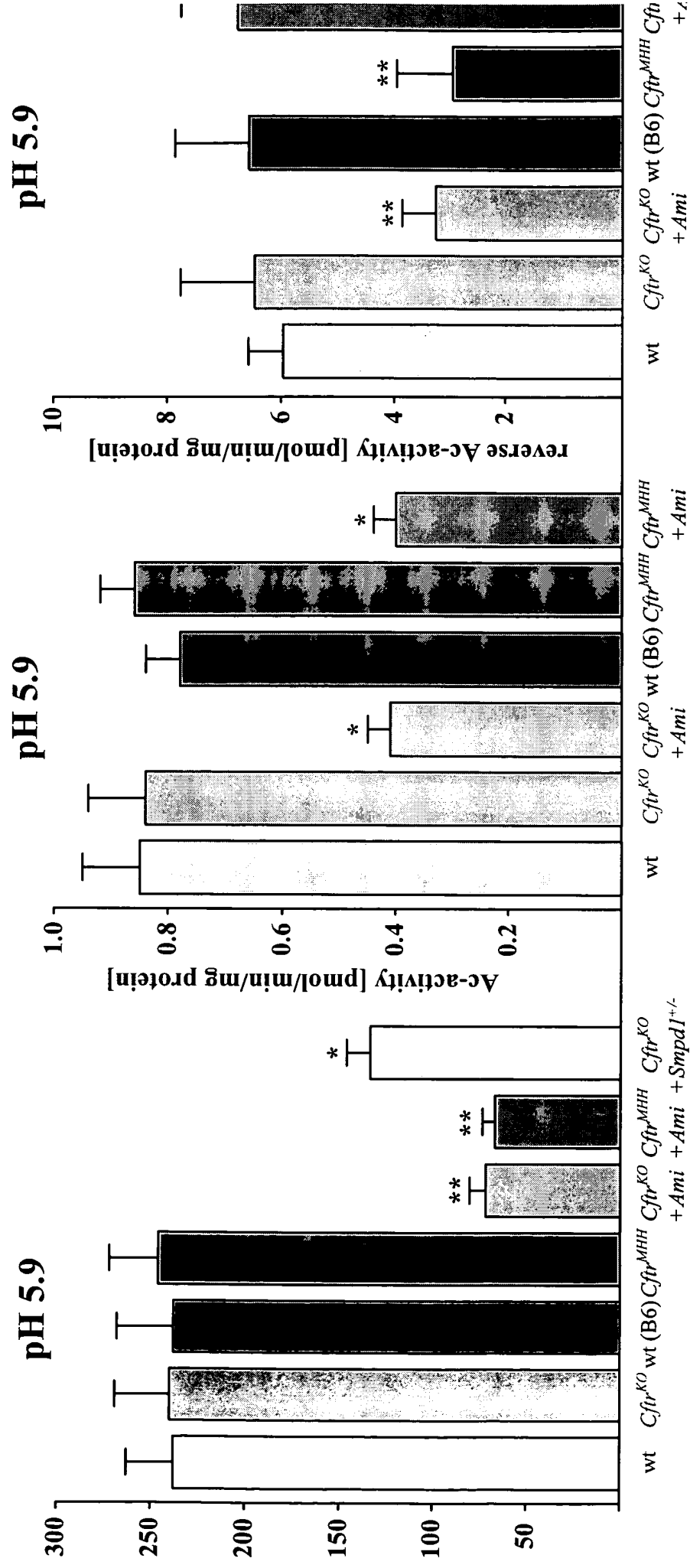
Figure 3 consists of two bar graphs. The top graph shows reverse acetyltransferase activity (pmol/min/mg protein) for various *Cfrt* genotypes at pH 5.9. The bottom graph shows forward acetyltransferase activity (pmol/min/mg protein) for the same genotypes at pH 5.9. Error bars represent standard deviation. Statistical significance is indicated by asterisks (\*, \*\*).

**Reverse Ac-activity [pmol/min/mg protein] at pH 5.9**

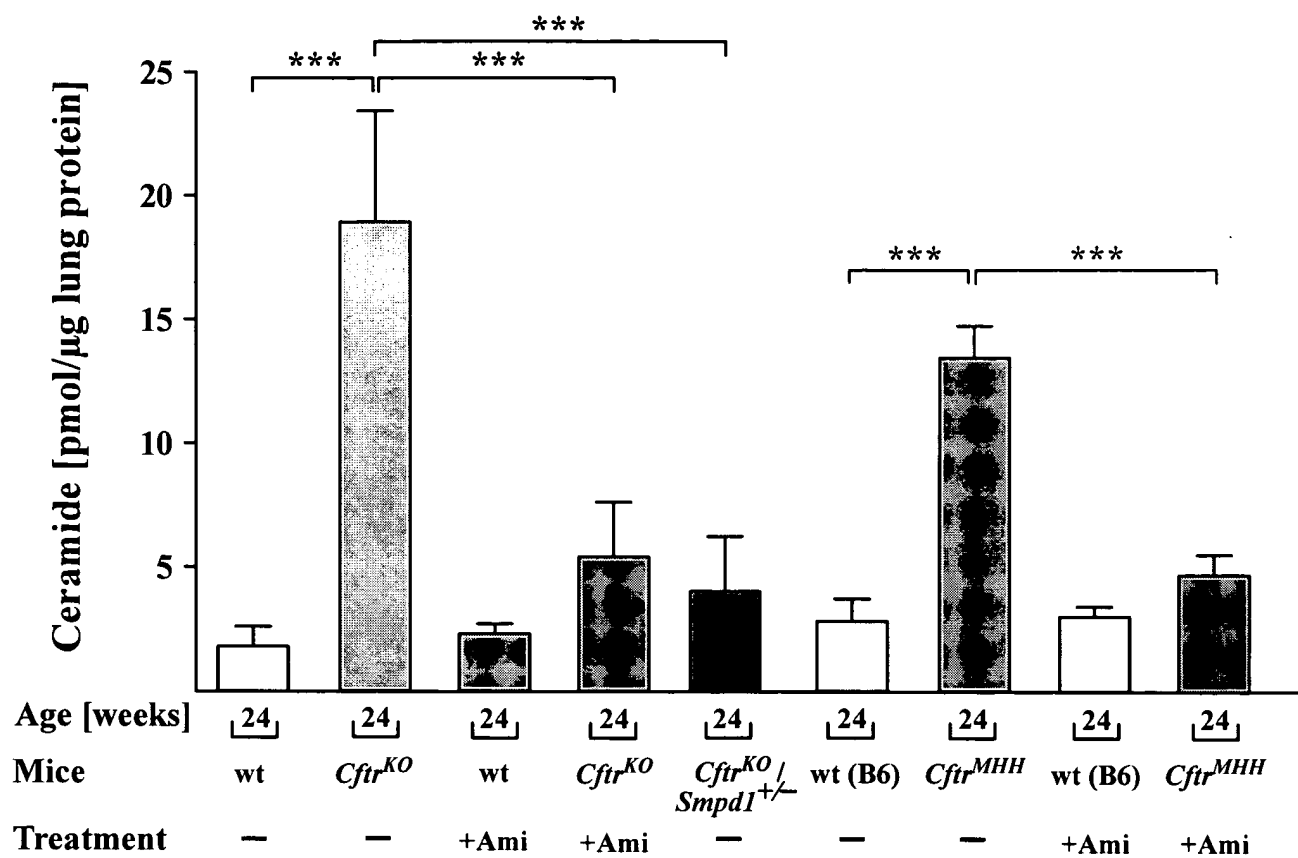
Genotype	Reverse Ac-activity [pmol/min/mg protein]	Significance
wt	~6.2	
<i>Cfrt</i> <sup>KO</sup>	~6.5	
<i>Cfrt</i> <sup>KO</sup> + Ami	~3.2	**
(B6) <i>Cfrt</i> <sup>MHH</sup>	~7.2	
(B6) <i>Cfrt</i> <sup>MHH</sup> + Ami	~2.8	**
<i>Cfrt</i> <sup>MHH</sup>	~3.8	*

**Forward Ac-activity [pmol/min/mg protein] at pH 5.9**

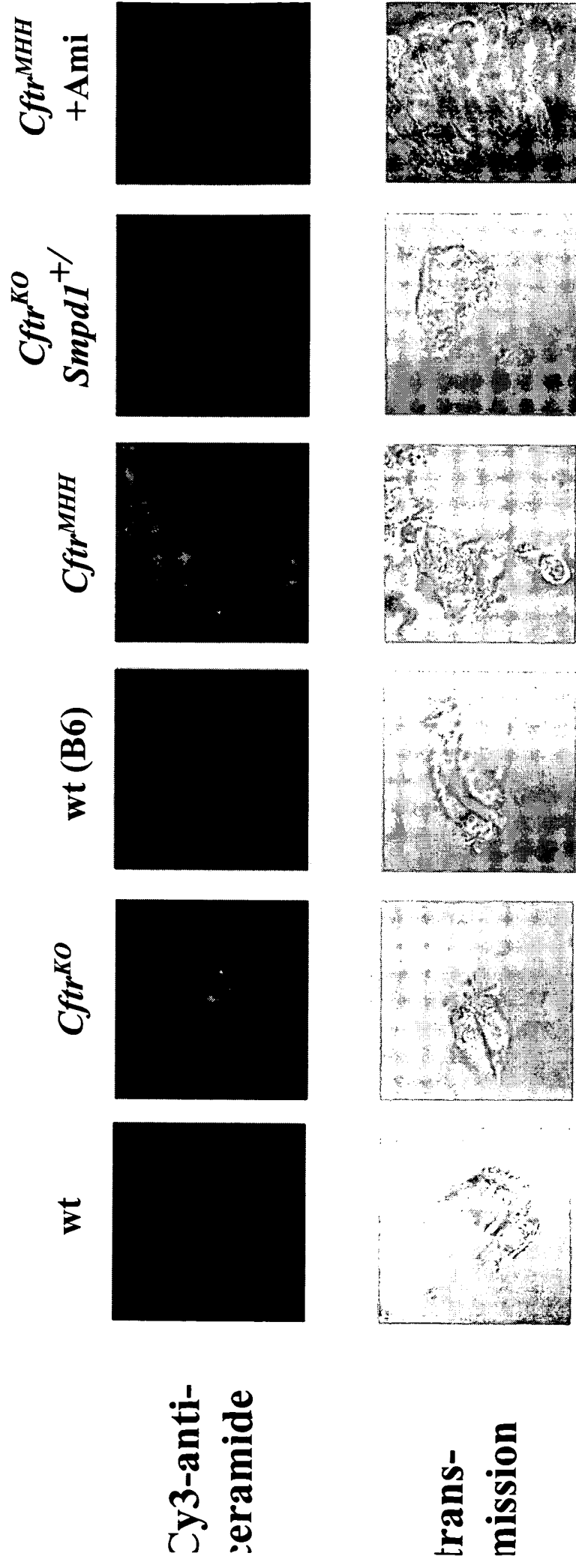
Genotype	Forward Ac-activity [pmol/min/mg protein]	Significance
wt	~0.88	
<i>Cfrt</i> <sup>KO</sup>	~0.85	
<i>Cfrt</i> <sup>KO</sup> + Ami	~0.38	*
(B6) <i>Cfrt</i> <sup>MHH</sup>	~0.82	
(B6) <i>Cfrt</i> <sup>MHH</sup> + Ami	~0.80	
<i>Cfrt</i> <sup>MHH</sup>	~0.85	
<i>Cfrt</i> <sup>MHH</sup> + Ami	~0.82	
<i>Cfrt</i> <sup>KO</sup> + Smpd1 <sup>+/-</sup>	~0.32	*



**Fig. 21**



**Fig. 2g**

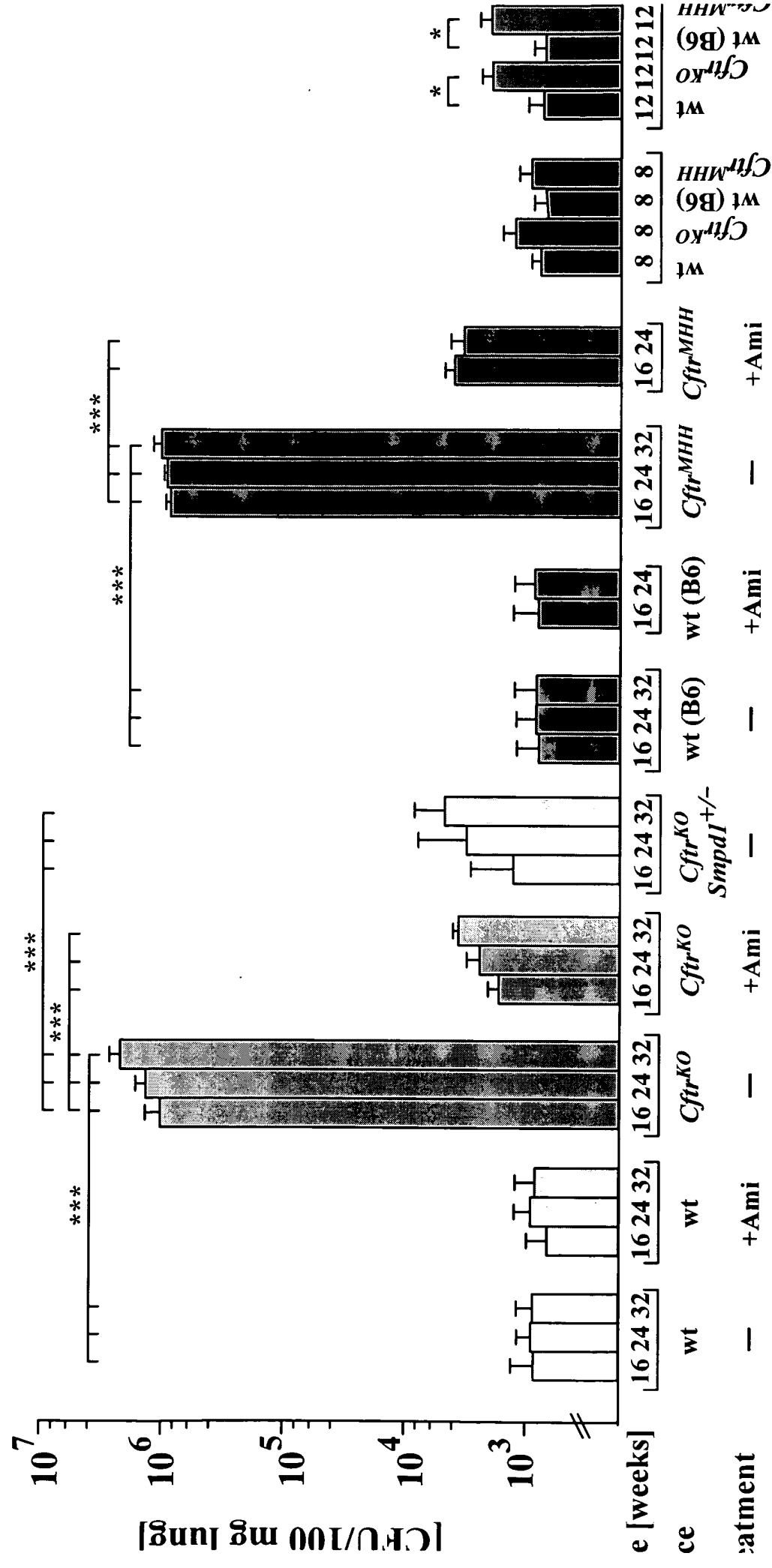


**Cy3-anti-ceramide**

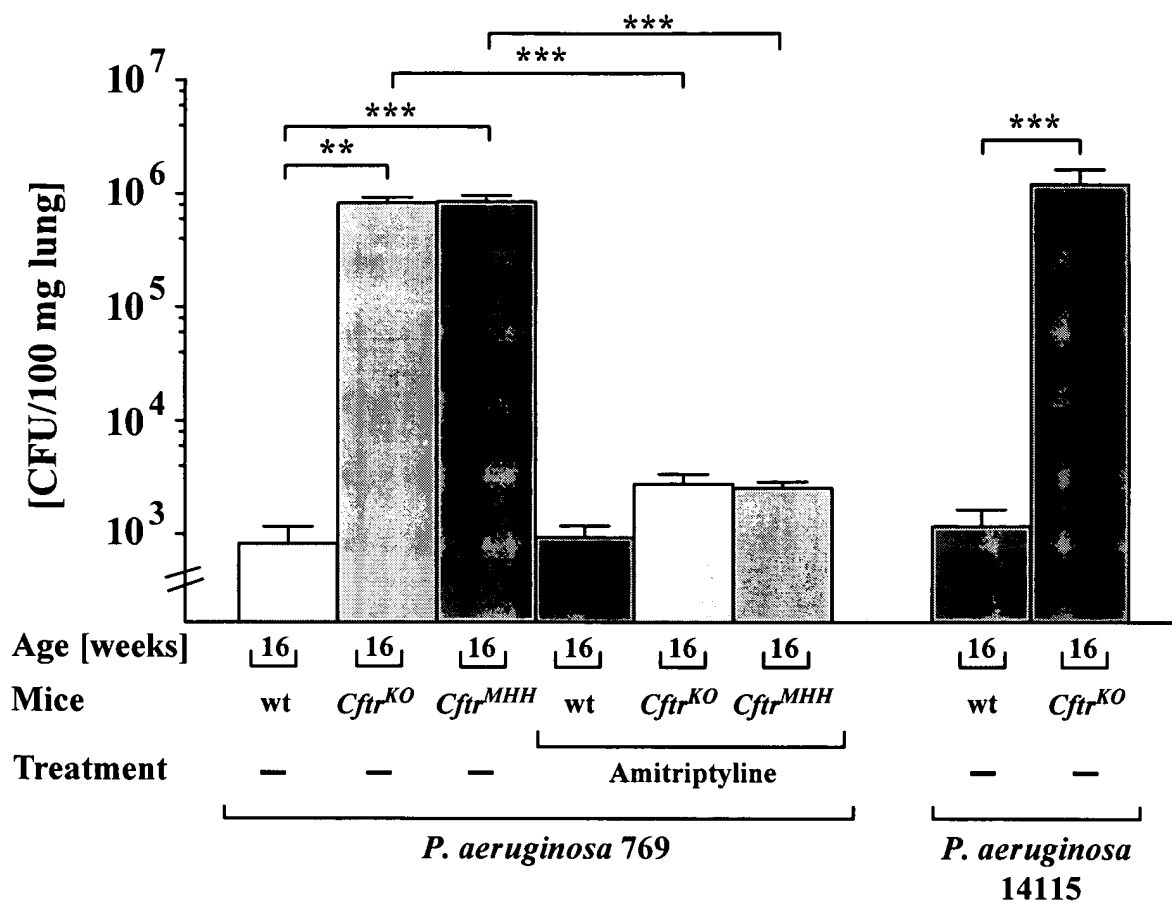
**transmission**

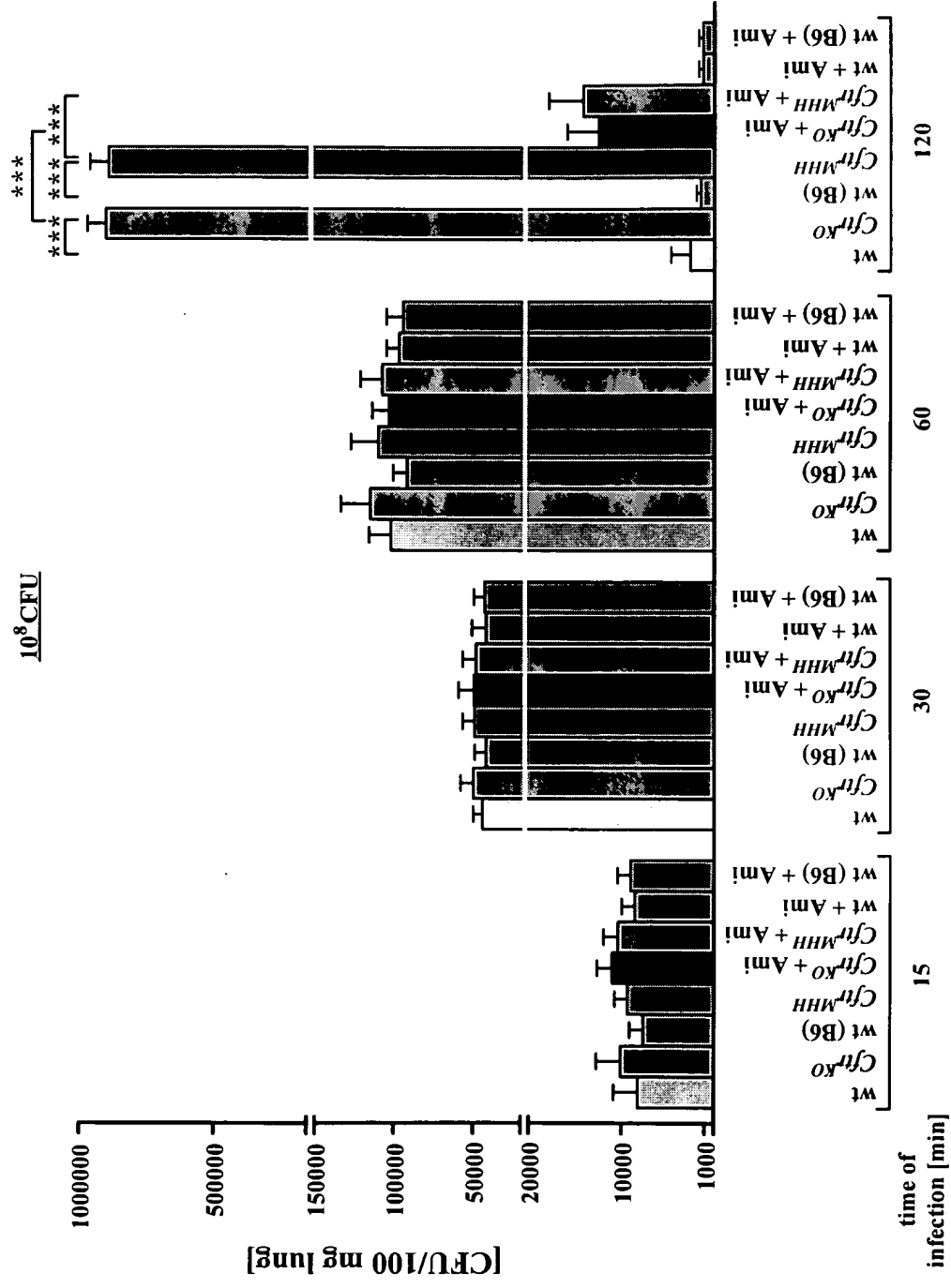
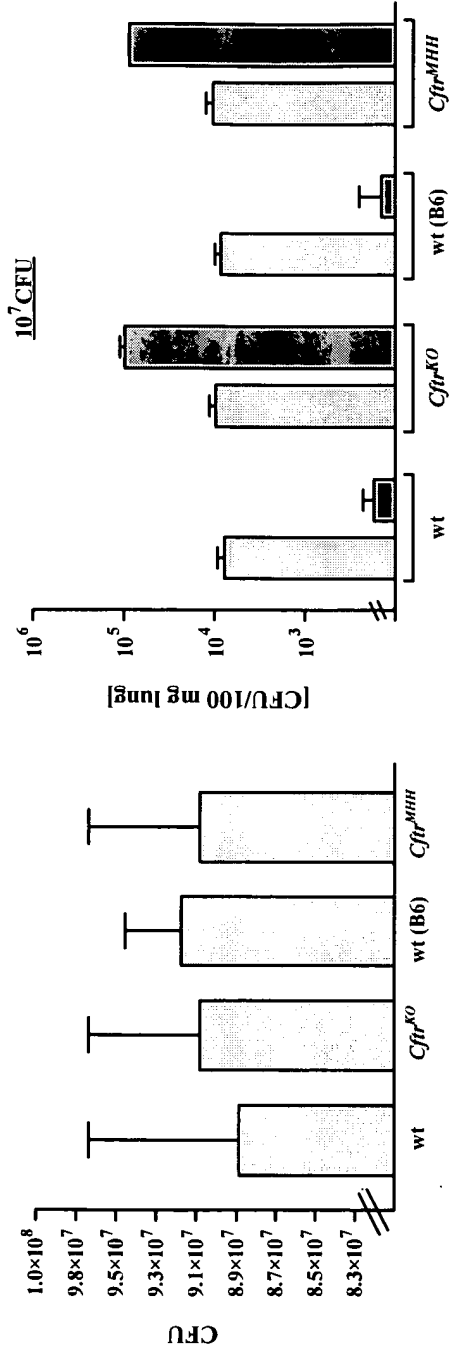


**Fig. 3a**



**Fig. 3b**





**Fig. 3d**

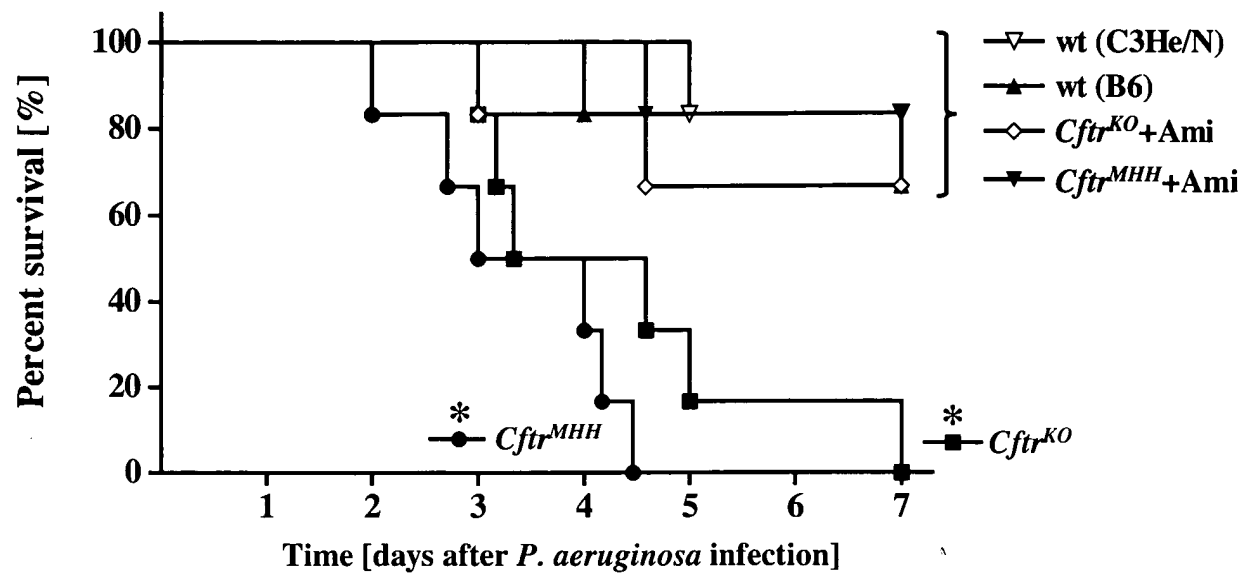


Fig. 4a

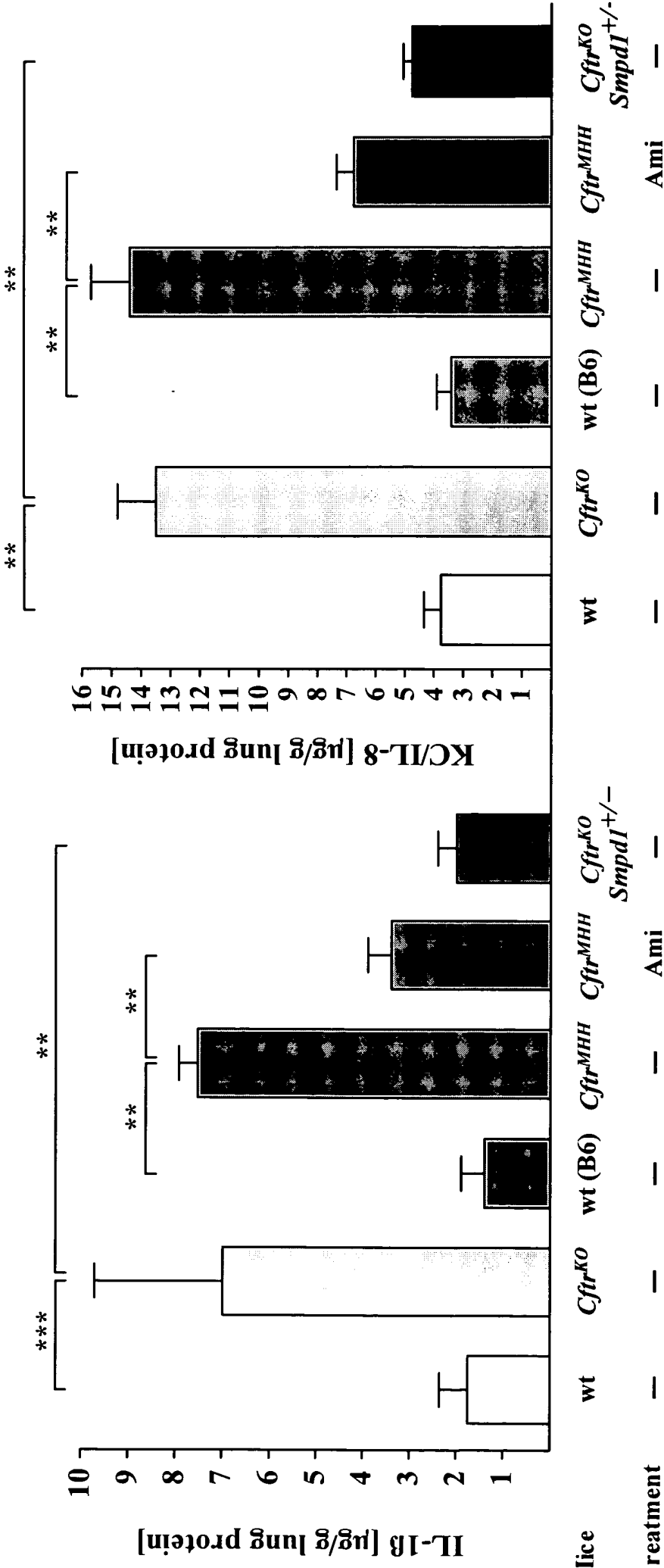


Fig. 4b

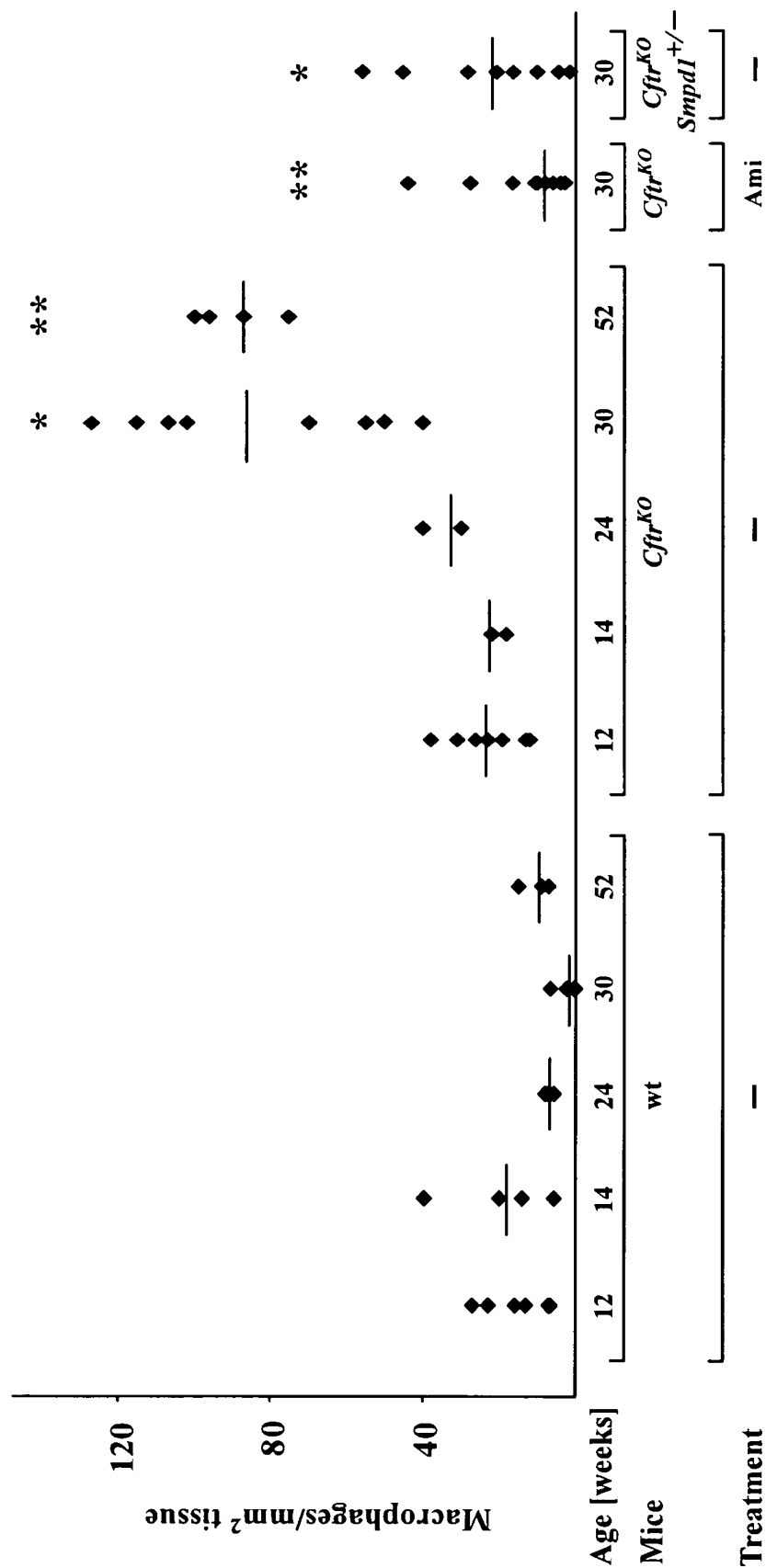
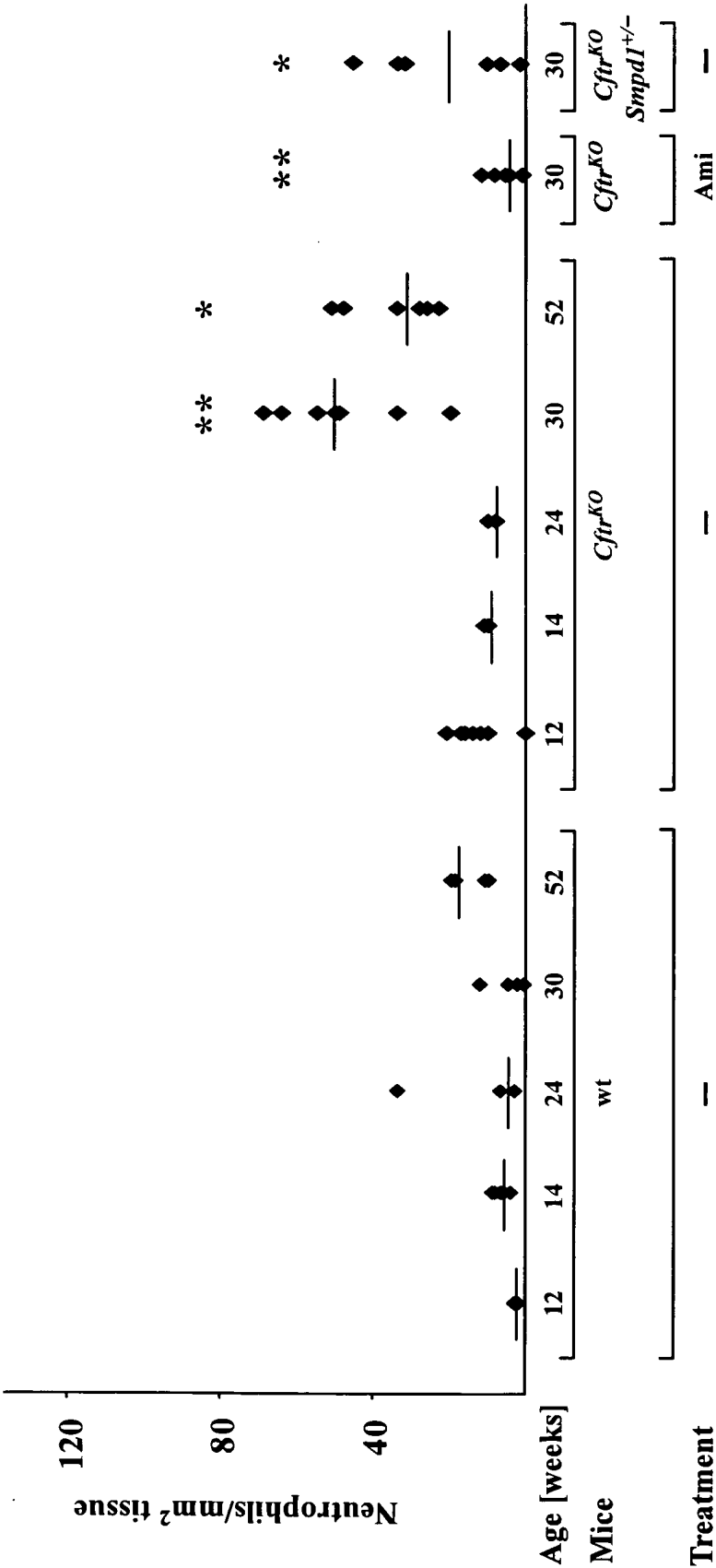
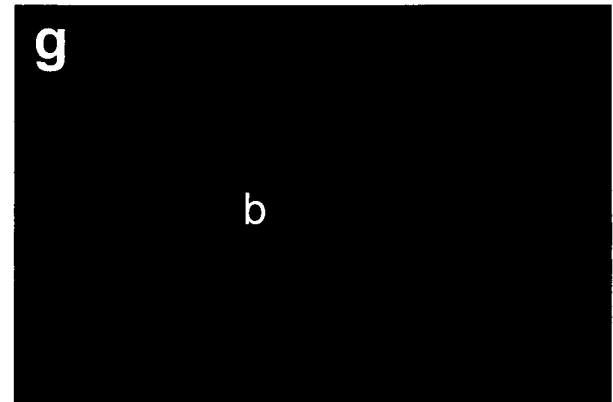
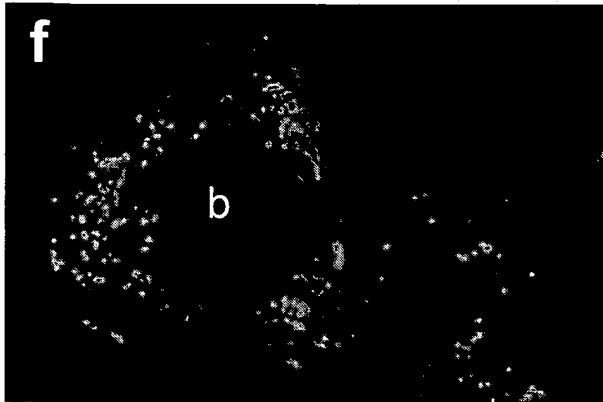
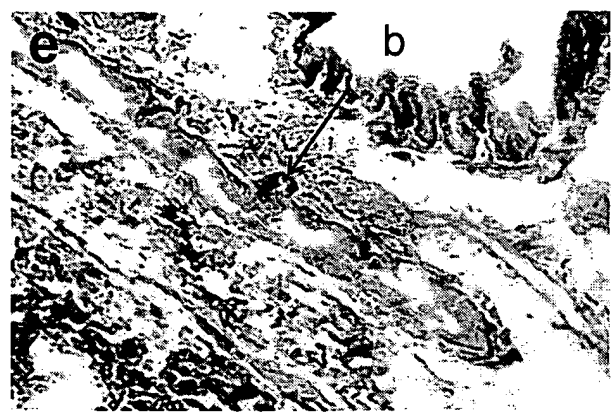
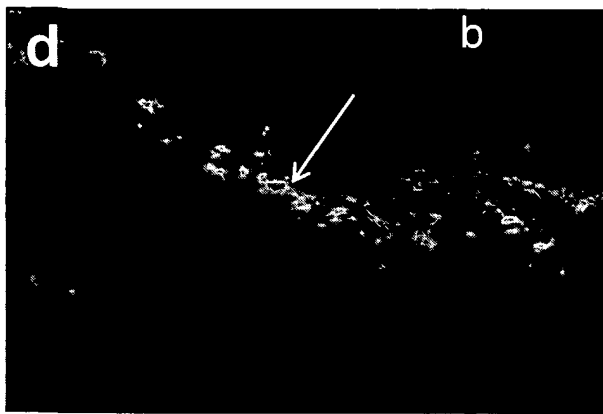


Fig. 4c





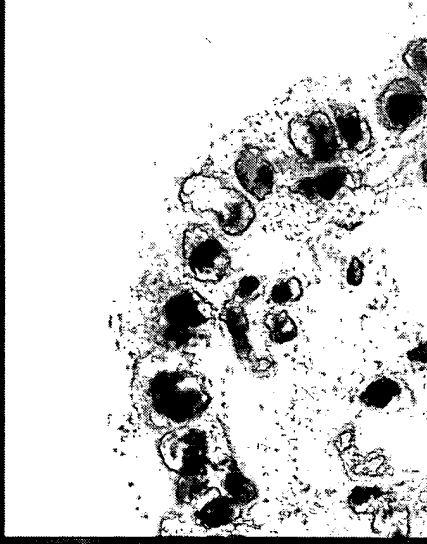


g. 5a

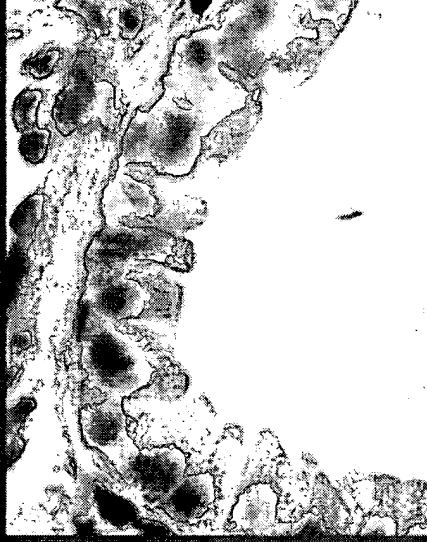
wt



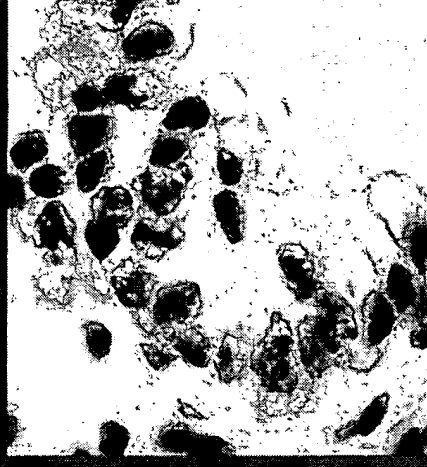
*Cftr*<sup>KO</sup>



wt (B6)



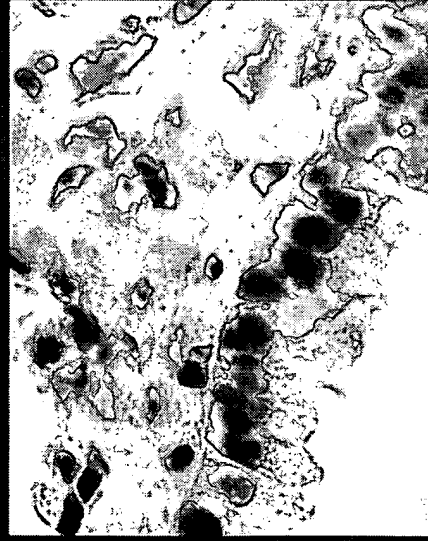
*Cftr*<sup>MHH</sup>



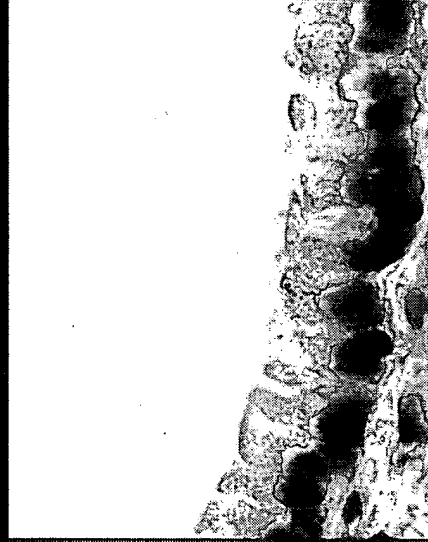
*Cftr*<sup>KO</sup> / *Smpd1*<sup>+/-</sup>



*Cftr*<sup>KO</sup> + Ami



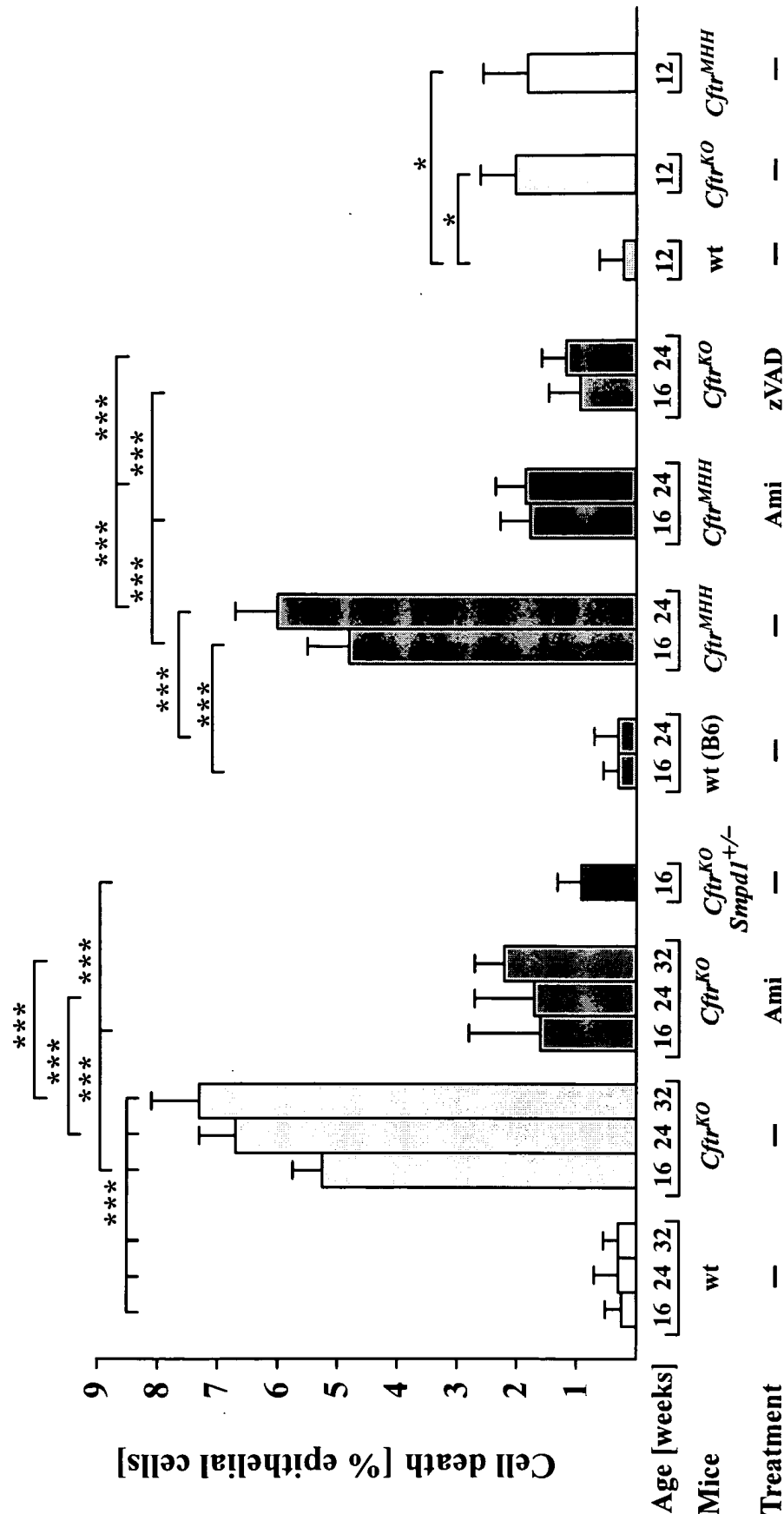
*Cftr*<sup>MHH</sup> + Ami



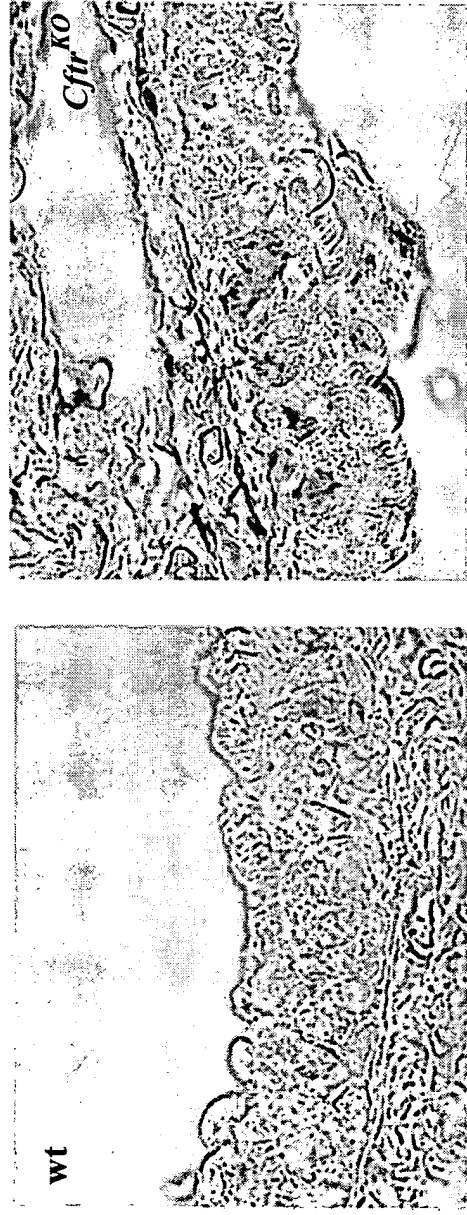
*Cftr*<sup>KO</sup> + zVAD



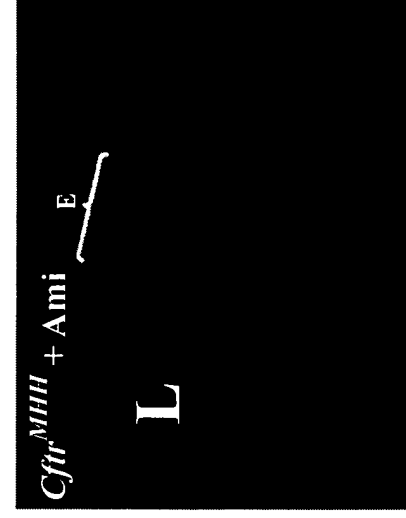
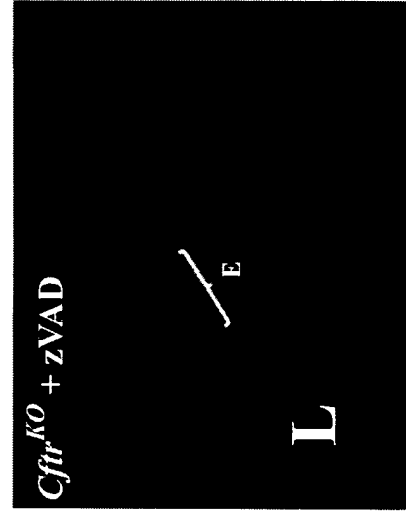
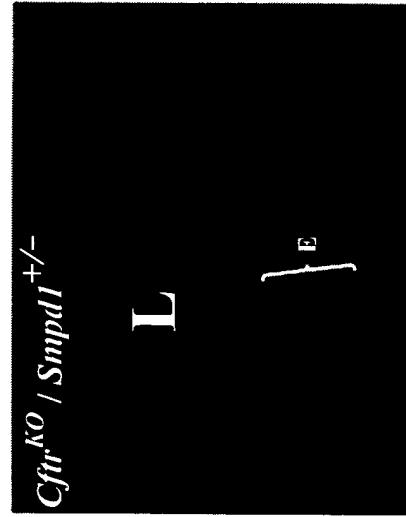
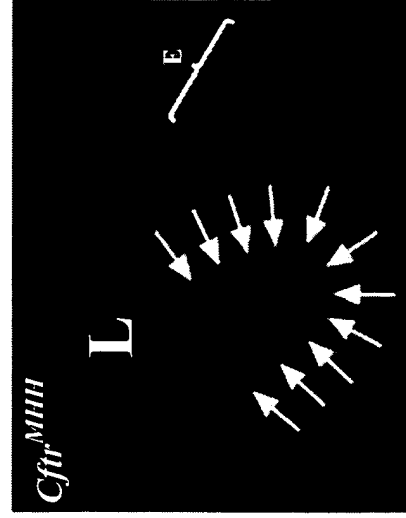
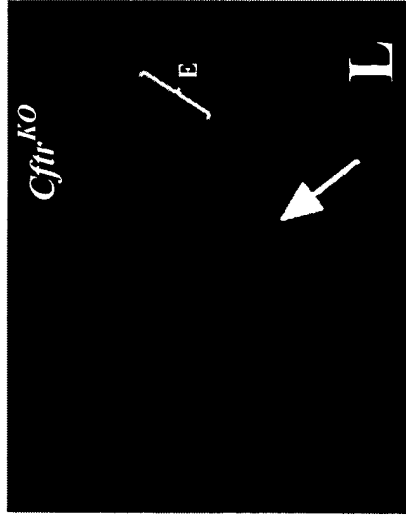
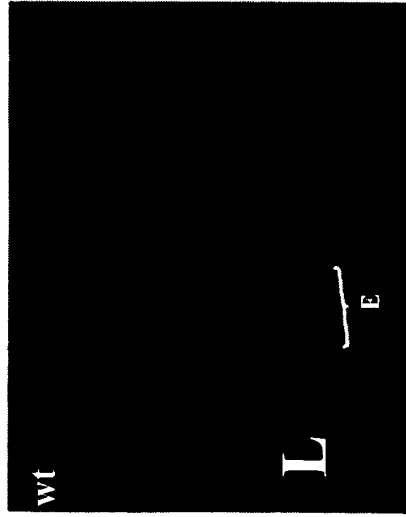
Fig. 5b



**Fig. 5c**



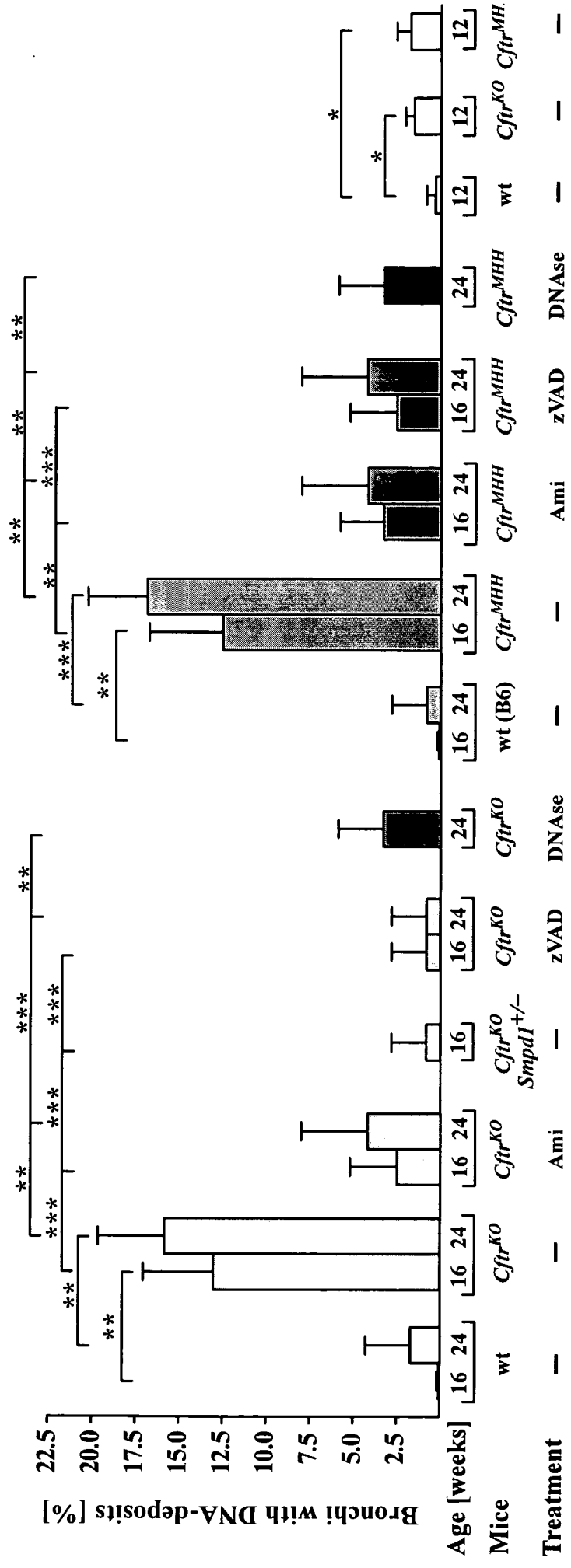
**TUNEL**

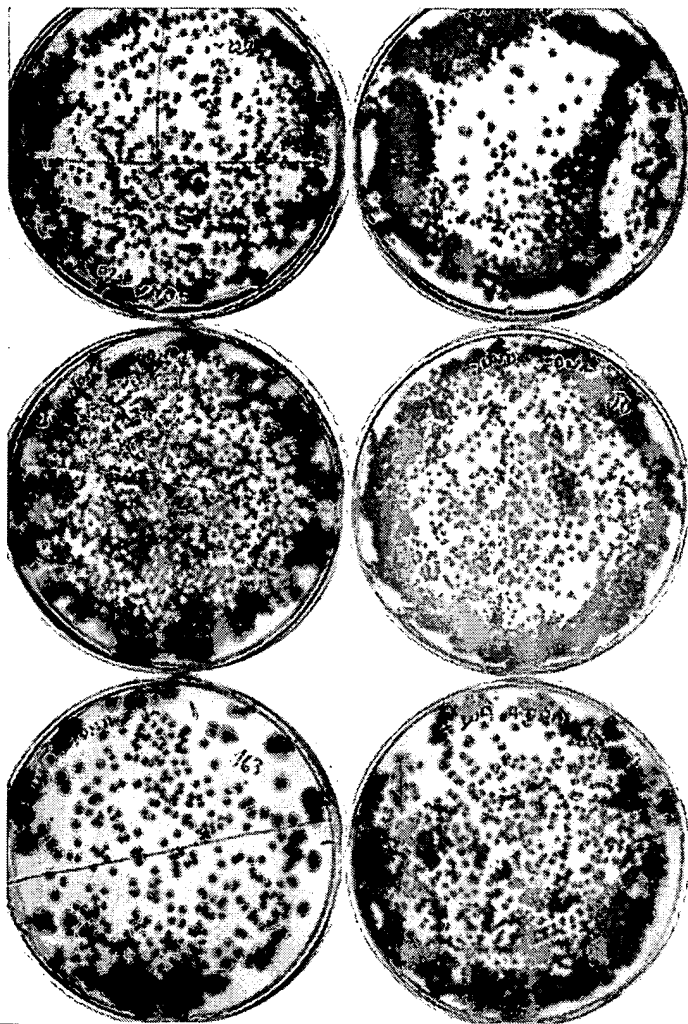


**EtBr-  
staining**

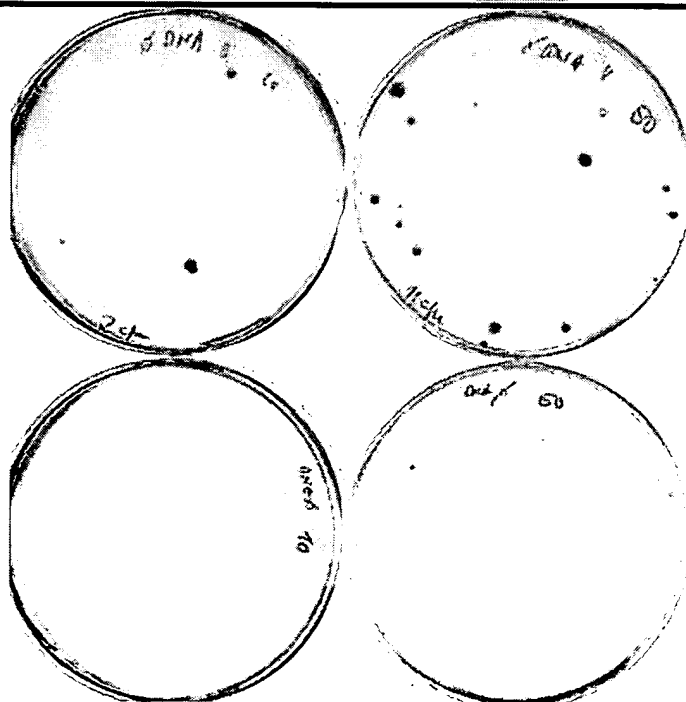
**EtBr-  
staining**

Fig. 5d





plus  
DNA



no  
DNA

**Fig. 6b**

**A549, no DNA**



**A549 + DNA**



Fig. 6c

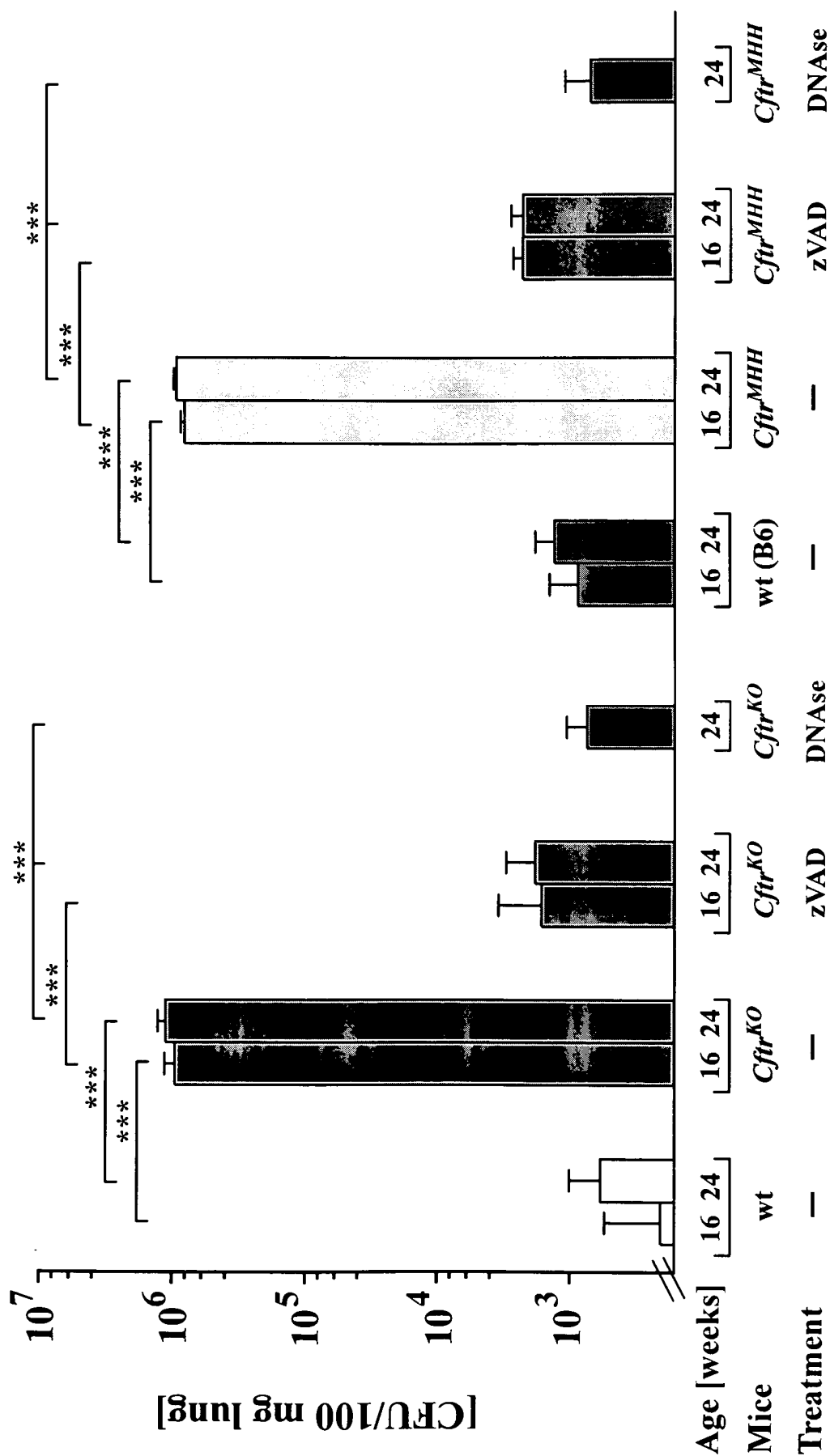


Fig. 7a

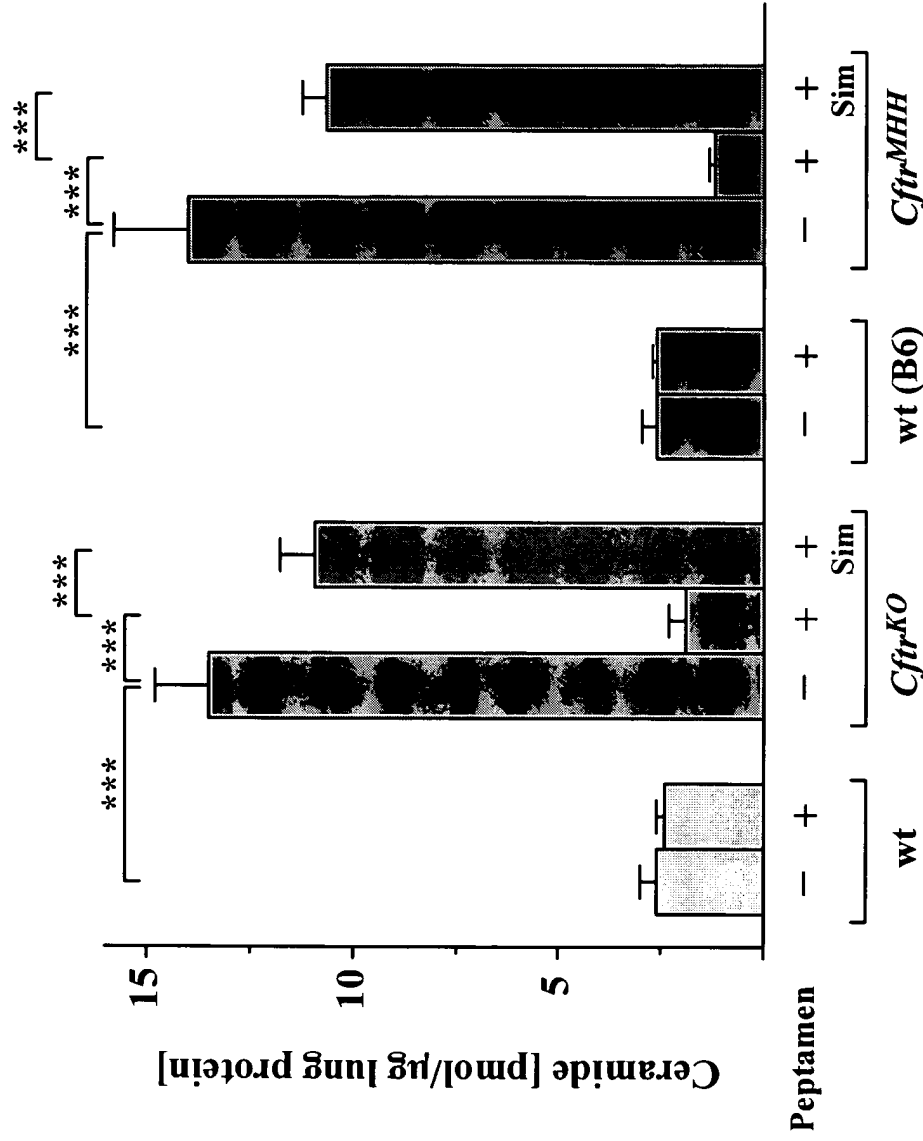




Fig. 10

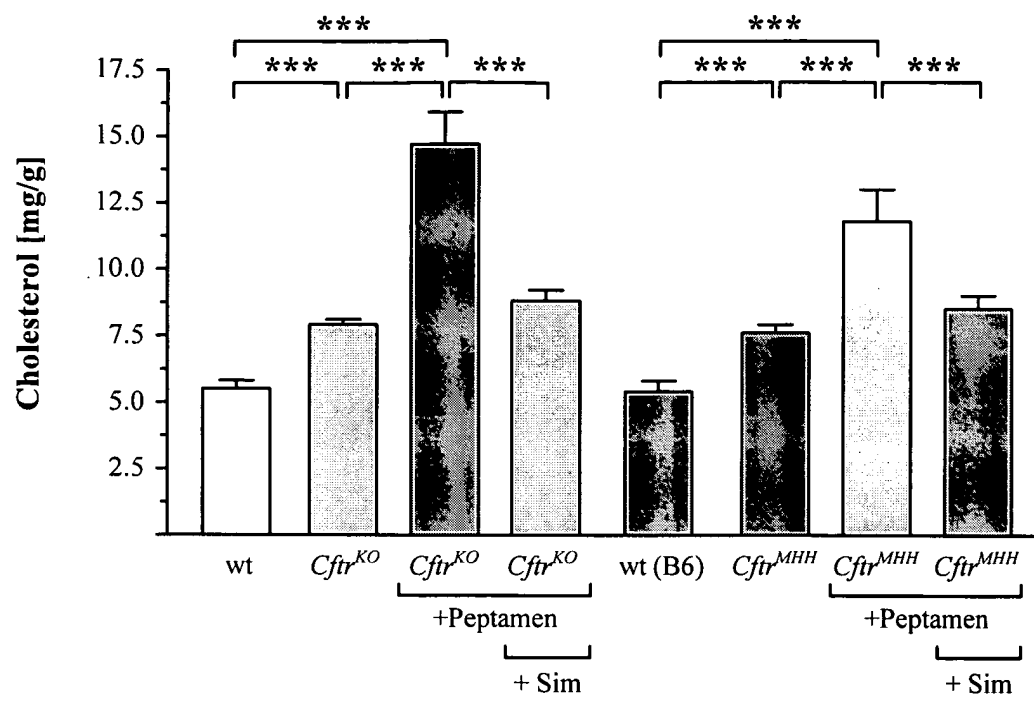


Fig. 7c

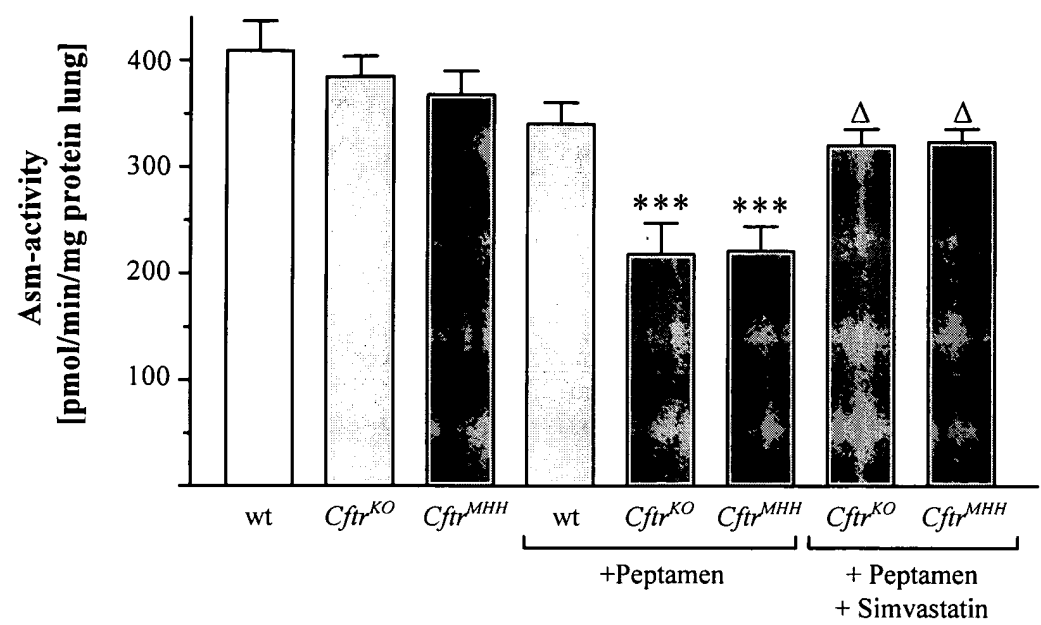


Fig. 7a

